MASTER OF SCIENCE BY RESEARCH

Selecting successful students
a cohort survey of first year BSc (Hons) Occupational Therapy students

Hay, Carolyn

Award date:
2016

Awarding institution:
Coventry University

Selecting Successful Students: a cohort survey of first year BSc (Hons) Occupational Therapy students

by

Carolyn J Hay

Master of Research in Social, Therapeutic and Community Studies

May 2016

Coventry University

A thesis submitted in partial fulfilment of the University's requirements for the Degree of Master of Research

Abstract

Pre-registration healthcare courses face a challenge: recruiting high calibre applicants who demonstrate the potential to be fit for purpose, practice and professional award. This multifaceted objective has been the driver for much research in recent years. However, there is no consensus as to which factors assessed through the selection process provide predictive value to the academic outcome of the student.

The research question, 'What are the assessed factors within the admissions process for a BSc (Hons) Occupational Therapy pre-registration course, which predict the outcome of a student's first year of studies?', was developed. Analysis of the UCAS application routes of occupational therapy students offered a unique insight into an area which has been well researched.

Working within a positivist paradigm, this retrospective cohort study analysed the admissions application and interview data for one cohort of full-time students (n=148) enrolled in a BSc (Hons) Occupational Therapy programme of study within a Midlands university. Data relating to the cohort's interview and subsequent academic performance were analysed using SPSS and parametric tests.

There were four key findings: 1. A difference in the academic performance of students dependent on their UCAS route of application; 2. A difference in the age range of candidates dependent on their UCAS route of application; 3. A difference in the academic performance of students dependant on whether they fully met the academic entry requirements or not and; 4. A link between the grading of three components of the interview (discussion of media clip, practical group task and candidate's writing style) and academic performance.

Synthesis of the findings allowed the following recommendations to be made: academic admissions tutors should consider lengthening the recruitment cycle to allow for 'UCAS Late' applicants who have, in this sample, a higher mean grade (n=60.99) than those via the 'on-time UCAS (n=57.97%) or 'UCAS Extra' (55.69%) routes. Additionally, utilisation of a variety of tasks within the recruitment process allows consideration of the value of highly scored written assessments in determining whether to accept a student who has not fully achieved the minimum academic entry requirements of the programme.

Thesis Word Count: 24793

‘Theories without data are like daydreams’

Rottenberg (2014)

Contents

List of figures

List of graphs

List of tables

Abbreviations / Acronyms

AHP	Allied Health Professional
BSc (Hons)	Bachelor of Science Degree with Honours
BTEC	Business and Technology Education Council
CATS	Credit Accumulation and Transfer Scheme
COT	College of Occupational Therapists
DoH	Department of Health
HCPC	Health and Care Professions Council
HE	Higher Education
HEE	Health Education England
HEFCE	Higher Education Funding Council for England
HEI	Higher Education Institution
MMI	Multiple Mini Interviews
MSc	Master of Science
NHS	National Health Service
OT	Occupational Therapy / Occupational Therapist
UCAS	University and College Admission System
UK	United Kingdom
VBR	Values Based Recruitment

Glossary of terms

Academic admissions tutor

A member of academic staff with ‘responsibility for aspects of the admissions process e.g. decision-making; collaboration in relation to the review and agreement of entry requirements; attendance at Open Days; and, support during Confirmation, Clearing and Adjustment’ (Supporting Professionalism in Admissions, 2012).

Admissions process

For the benefit of this study, ‘admissions process’ is considered to be from the applicant’s point of application via UCAS, through to final confirmation of a place on completion of the candidate achieving all the identified conditions of their offer.

Applicant

A person who has applied for a place on a programme of studies (Strategic HR Inc., 2010).

Application

For the benefit of this study, only applications received via the ‘UCAS’ or ‘Clearing’ systems are discussed.

Attrition

‘Departure from or delay in successful completion of program requirement’ (Ascend Learning 2012).

Candidate

A person who, following screening of their application, has been considered to meet (or have the potential to meet) the minimum entry requirements and therefore invited to proceed to the interview stage of the application process (Strategic HR Inc., 2010).

Cohort

A group of people with a shared characteristic. For the research purposes this is a cohort of students who all commenced the identified programme of studies at the same time.

Clearing

'Clearing is how universities and colleges fill any places they still have on their course' (UCAS (n.d. d)).

Credit Accumulation and Transfer Scheme (CATS)

'Is recognised by many UK Higher Education Institutions as a method for quantifying credit to a particular course' (University of Oxford, 2014). This is determined by the UK Quality Code for Higher Education (QAA, 2014).

Credits of study

10 credits equate to 100 hours of student effort. Modules of study are awarded a constituent number of credits (e.g. 10 or 20 credits).

Higher Education

'Primarily describes post-18 learning that takes place at universities, as well as other colleges and institutions that award academic degrees, professional qualifications and Continuing Professional Development (CPD) modules' (Learning Consultancy Partnership, 2013).

Interview

Within this research, the term refers to the period of time in which the candidate is at the university, in direct contact with the panel involved in the selection process, and all components of their application which are assessed during this time.

Multiple mini interviews

Multiple Mini-Interviews (MMIs) involve candidates rotating every few minutes around a series of scenario-based tasks or questions, and therefore make use of a wide sampling of candidates' competences in order to gain a more accurate picture of their overall abilities (O'Brien et al. 2011: 398).

Paradigm

A 'shared commitment by an identifiable group of scientists' (6 and Bellamy 2012:32).

Session A / Session B

The academic year within the studied university is divided into two 12-week sessions of study (Session A: October - January, Session B: February – June).

UCAS

The widely used acronym for the 'University and Colleges Admission Service'. UCAS provide 'application services across a range of subject areas and modes of study for UK higher education providers' (UCAS n.d. a).

UCAS Extra

An opportunity for applicants to make two extra university or college choices through UCAS (UCAS n.d. b). Applicants who do not receive any offers from their five main scheme choices, or decline any offers that they receive, are eligible to make choices through the Extra process (UCAS 2014). It is noted on their application that this is an 'Extra' choice.

UCAS Late

This term is used to refer to all applications received after the January deadline (UCAS n.d. h). Applications submitted late still use the same paperwork as those applications submitted within the usual timeframe (UCAS 2016a). It is noted on their application that this is a 'Late' application.

Further detail about UCAS routes can be found in Appendix 1

Undergraduate

A student studying towards a qualification equivalent to and below first degree level. (HESA n.d. a)

Glossary of qualifications

This list details qualifications referred to within the thesis.

A-Levels

‘A grade of education offered by schools and colleges and is an accepted form of qualification. A-Levels are generally a two year course’ (A-Levels.co.uk 2008).

Access to Higher Education Diploma

‘A qualification which prepares people without traditional qualifications for study’ (The Quality Assurance Agency for Higher Education n.d.).

BTEC

‘BTECs are vocational qualifications designed to give students the skills they need to either move on to higher education or go straight into employment… …BTECs are designed as specialist work-related qualifications and are available in a range of sectors… …BTECs provide a practical, real-world approach to learning alongside a theoretical background’ (Pearson 2015).

Degree

‘A bachelor's degree is a course of academic study leading to a qualification such as a bachelor of arts (BA), bachelor of science (BSc), or bachelor of medicine (MB)’ (NI Direct Government Services 2014).

Acknowledgments

Sincere thanks go to Dr Ruth Heames, Ann Green and Pat Harding for their time, support and expertise in the development and supervision of this work.

A special thanks goes to Anna Clampin for her critical eye and gentle guidance.

Thank you to Dr M Clare Taylor and Dr Jo Watson for making a viva unexpectedly enjoyable! Your probing questions have given me more confidence in this work.

Chapter One

1 Introduction

1.1 Introduction to chapter

The profession of occupational therapy is dynamic and developing and consequently one of the fastest growing healthcare professions within the United Kingdom (UK) (Westcott 2014:23, QAA 2001: 6). Additionally, the American Bureau of Labor Statistics (2014) identifies employment of occupational therapists to grow at a rate of 29% between 2012 and 2022 which is significantly faster than other professions within America. This confirms that the growth in the profession is not unique to the UK. With a ratio of 4.39 applications to every available UK occupational therapy university place in the 2010/11 academic year (COT 2014a), demand for places is high and so academic admissions tutors are given the challenge to select high calibre candidates from a large pool of applicants. Therefore there is a drive for an evidence-based admissions process that utilises reliable and valid tests, is accessible to its candidates and identifies their potential to succeed. These factors led to the development of this study.

1.2 Introduction to occupational therapy and occupational therapy education

Occupational therapy (OT) is a 'client-centred health profession concerned with promoting health and well-being through occupation' (COT 2013: 1). A common definition used in explaining the profession to a lay person is: 'Occupational therapy enables people to achieve health, well-being and life satisfaction through participation in occupation' (COT 2011a).

Occupational therapy is a science degree-based, health and social care profession (COT 2011b). The title is protected by law and the Health and Care Professional Council (HCPC) hold a register of occupational therapists who meet their standards for 'training, professional skills, behaviour and health' (HCPC n.d).

One of the stages prior to being able to practise as an occupational therapist is to complete a pre-registration programme that has been approved by the Health and Care Professions Council. At the time of writing, all pre-registration programmes are also accredited by the professional body, the College of Occupational Therapists (COT), although this is not a requirement for course providers. This accreditation seeks to professionally quality assure pre-registration occupational therapy education (Clampin 2013). Accredited programmes have been able to demonstrate (among other elements) that the students are assessed sufficiently to 'assure fitness for practise, purpose, profession and academic award' (COT 2008: 15). Further consideration will be given to these concepts when discussing relevant policy.

HCPC's register of approved programmes, in June 2014, showed 29 full time (3 or 4 year) undergraduate BSc (Hons) Occupational Therapy programmes in the United Kingdom (HCPC 2014b). HCPC's Standards of Education and Training ensure that anybody who completes an approved programme meets the standards of proficiency for their profession and so is eligible to apply to register with HCPC and, if successful, use the protected title of 'Occupational Therapist' (HCPC 2012).

COT publishes standards and requirements of 'desired outcomes for education programmes' (2014a: 1) and provides accreditation of pre-registration training courses (COT 2011b). These standards seek to enhance the standards set by statutory bodies such as the Health Professions Council (COT 2008: 3). In 2014 COT accredited occupational therapy programmes were offered by 31 different universities within England, Northern Ireland, Scotland and Wales. 25 (22 of these within England) of these Higher Education Institutions (HEI) offer a three year full time Bachelor of Science (with Honours) (BSc (Hons)) route of study (COT 2014a).

Prospective occupational therapists undertake either a BSc (Hons) or pre-registration Master of Science (MSc) programme of study at a HCPC approved Higher Education Institute. Available routes of study are three or four years of full time study towards a BSc (Hons), four or five years studying on a part time or part time in-service route leading to a BSc (Hons), and accelerated entry route which usually enables the completion of a BSc or MSc within a two year period (COT 2014a).

For the majority of programmes, a BSc (Hons) Occupational Therapy degree is traditionally funded by an National Health Service (NHS) bursary and therefore students do not have to pay tuition fees to the institute where they undertake the programme of studies (DoH 2015a: 21). Increasingly there are a number of self-funded places available across institutions within the United Kingdom and this trend is likely to continue.

In the 2014/15 academic year Health Education England (HEE) supported the commissioning of training for 1523 students to join an occupational therapy programme of study. This figure is identified in relation to workforce planning and, on successful completion of the programme, these graduate occupational therapists will form 8.3% of the occupational therapy workforce (HEE 2013b).

This study is concerned with students enrolled on a three year full time BSc (Hons) Occupational Therapy programme of NHS funded study within a Midlands University.

1.3 Student recruitment and selection

Recruitment of students is a complex and multi-faceted process. The various aspects to this will be outlined both in relation to occupational therapy undergraduate education as a whole. and more specifically in regards to the selection process for the researched programme.

1.3.1 University and Colleges Admission Service

UCAS is the widely used acronym for ‘University and Colleges Admission Service’ (UCAS n.d. a). UCAS provide centralised ‘application services across

a range of subject areas and modes of study for UK higher education providers' (UCAS n.d. e). It standardises the information universities have at the point of application. Details of the routes of application offered by UCAS are detailed in Appendix 1.

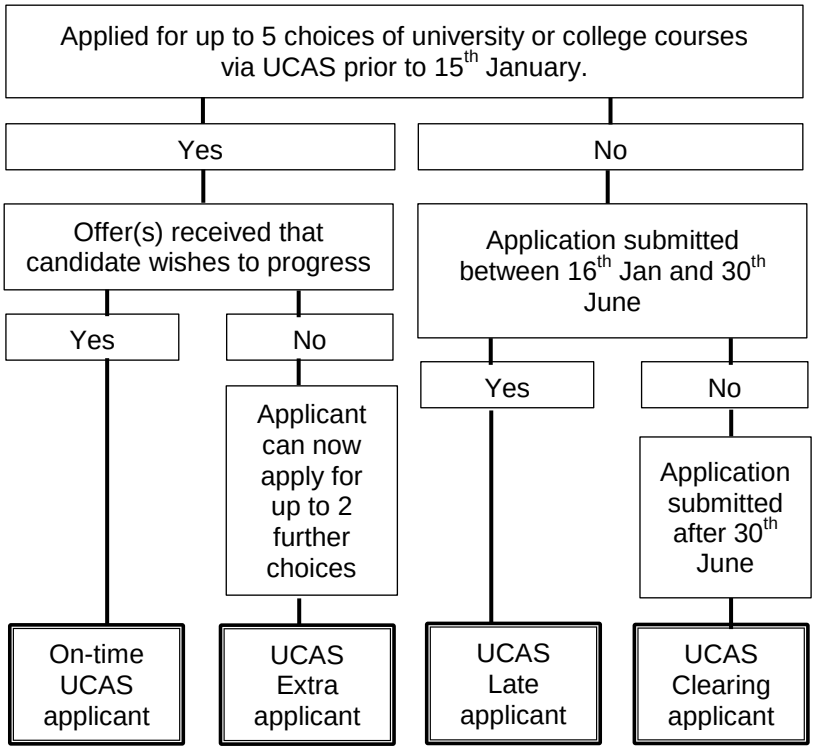
The University and Colleges Admission Service (UCAS) is utilised by Higher Education providers to manage applications centrally (UCAS n.d.e). This service has some key deadlines and applications routes which will be explained in relation to the BSc (Hons) Occupational Therapy programme considered within this study.

Candidates register with UCAS and can apply for up to five choices of university or college from early September of the year before they plan to commence their studies. Candidates can apply for any course at any university, they do not have to apply for all courses of the same subject area. All applications received up to and including 15th January are classed as 'on-time' UCAS applications. Applications received between 16th January and 30th June are classed as 'Late' applications. UCAS Late applications are processed in the same way as on-time UCAS applications. However if a course is full, or has the potential to be full from the UCAS on-time applications the course is not obliged to accept these applications. Applications received after 30th June are entered into Clearing (UCAS n.d. h).

If a candidate has not received any offers from their five main scheme choices, or have declined any offers that they received, they are eligible to make two extra university or college choices through the 'Extra' process (UCAS 2014). Again, the university course is not obliged to accept these applications.

A course can close to new applications at the point at which it has sufficient candidates to fill the programme to the required numbers. Candidates who have applied via the on-time UCAS route, Late and Extra routes are all processed and interviewed in the same way. Applicants wishing to apply for a deferred entry (i.e. entry in to the following year) follow the same processes and deadline dates. The information outlined above is represented pictorially in Figure 1.

Figure 1 UCAS application routes



The applications submitted via UCAS provide several pieces of information: demographical information (including name, date of birth, contact details, area of permanent residence, disability/special needs/medical conditions, nationality); course choices (details of other courses/universities are hidden from view at point of application), qualifications (achieved or studying towards);

employment; criminal convictions; and reference (UCAS 2016b). These assist the universities in making a decision regarding progressing the application.

For the university being researched within this study, on receipt of an application the Admissions Office, a member of the administration team, reviews the application and looks firstly at the candidate's potential to meet the academic entry requirements (discussed further in 1.3.2). If the candidate has the potential to achieve these then their personal statement is reviewed (please refer to 1.3.3). If this is satisfactory then the candidate's eligibility for funding is assessed as there are criteria provided by the funding body which candidates must meet). Once this criteria is satisfied the candidate is then invited to an interview. It is at this point that the Academic Admissions Tutor reviews the application in preparation for the interview.

1.3.2 Academic entry requirements

Neither COT nor HCPC specify minimum academic entry requirements. Indeed the College of Occupational Therapists' Learning and Development Standards are purposely designed to allow each individual higher education institution to interpret how to apply these standards (Grove 2015). The Health and Care Professions Council do identify that there should be evidence of a 'good command of reading, writing and spoken English' (HCPC 2012). Consequently, without explicit requirements, academic entry requirements for admissions to undergraduate programmes of study vary across the institutions. Entry requirements are usually considered using the UCAS tariff. Although as Grove (2015) highlights 'we must ensure that students who begin to study

occupational therapy are not at a disadvantage to their peers from the outset of their studies'.

The UCAS tariff enables a numerical ranking of the various qualifications and grades awarded that are available within the education system of the United Kingdom. Typically, a university identifies A-levels as the baseline/benchmark although a range of qualifications are accepted. Occupational therapy applicants are usually required to either achieve a total number of UCAS points (e.g. 280 points) or a specified A-Level grade profile (i.e. AAB).

In considering the Higher Education Institutions within England offering a full time BSc (Hons) Occupational Therapy programme, the academic entry requirements range from 260 UCAS points (BCC A-Level profile) to 340 UCAS points (AAB A-Level profile). For 2013/14 entry many courses identify that a B grade should be achieved in a science or social science subject (such as Biology or Sociology). None of the programmes accept General Studies A-level.

1.3.3 Personal statement

In addition to academic entry requirements, all programmes within the application decision process will consider the applicant's personal statement and a full academic reference (UCAS n.d. f). Most programmes based in England hold group and/or individual interviews (Parkin 2014: 7). The personal statement is submitted at point of application and offers the applicant an opportunity to demonstrate the reasons they wish to join the programme and their experiences leading to this choice (UCAS n.d. g).

1.3.4 The interview and decision process

The interview process at the studied university has several components. Firstly a presentation is given by the academic admissions tutor which provides an overview of the programme and the university. This does not form part of the assessment. Candidates are then randomly split into groups of approximately seven people with whom they complete two tasks. The first task is a discussion around a media clip. The second group task is to create a Wordle identifying the personal and professional skills they will gain and develop on their journey to becoming an occupational therapist. Candidates then have 30 minutes to complete a written task containing nine questions. The questions seek to gain a reflection of the candidate's perception of their role within the group task in addition to demonstrating their knowledge of and suitability to the profession. Links to further details of all aspects of the interview are located in Appendix 2.

Candidates are assessed by a member of the academic teaching team and an occupational therapy practitioner. They are both given training prior to the interview forum to ensure that all candidates are assessed in a fair manner. In addition to the face to face tasks, the interviewers also review the candidate's personal statement.

The interviewers then use the Applicant Decision Sheet (please refer to Appendix 3) to record their findings and allocate a grading for the candidate's performance. Finally they indicate a recommended decision to accept or reject the candidate.

The candidate is notified of the interview decision via UCAS. Any offer will have conditions attached to it, such as completion of academic qualifications or occupational therapy work experience. The candidate then makes a decision to either accept this offer as their first (Firm) or second (Insurance) choice, or to decline the offer. Places are then confirmed once the candidate has met all identified conditions of the offer.

1.3.5 Fitness for academic award, practice, purpose and profession

As previously stated, occupational therapy is a healthcare profession. It is important to be clear that in recruiting applicants to an occupational therapy programme of study there are additional considerations beyond that of academic potential. Callwood, Allan and Courtenay (2012: 835), Timer and Clauson (2011: 601), Wilson (1999: 183) and others all recognise the multi-faceted nature of recruiting to healthcare and medical programmes. Candidates selected need to demonstrate levels of academic, clinical and personal aptitude so they can succeed in theory in addition to clinical practice (Callwood, Allan and Courtenay 2012: 835).

Within the recruitment process, interviews are often used by institutions to assess a candidate's potential in this variety of skills. This includes a candidate's potential to be fit for award, fit for practise and fit for purpose.

In addition to supporting students to achieve an academic qualification ('fit for award'), healthcare courses have the additional requirement of meeting relevant governing body specifications to allow those who have been deemed 'fit for award' be able to register for the profession and use the relevant protected title

(i.e. occupational therapist). Throughout a healthcare professional's career they need to demonstrate to the relevant governing body that they are maintaining and developing their professional knowledge and skills. This is known as being 'fit for practise'. Being 'fit for purpose' demonstrates a professional's ability to undertake a particular job role.

The accreditation programme developed by the College of Occupational Therapists ensures that graduates from accredited programmes are: fit for academic award, practise, purpose and profession (COT, 2014c: 16).

1.4 Key policy documents

There are several key policy documents which influence entry and entry processes to an occupational therapy programme of studies. These are shown chronologically in Table 1 and the key points and relevance to the study are identified for each policy.

Continued…

Table 1 Key Policy Documents

Details	Relevant Key Points
Higher Education Funding Council for England (1999) *Widening Participation*	Aims to 'promote and provide opportunity of successful participation in higher education to everyone who can benefit from it'.
Steven Schwartz, Admissions to Higher Education Review (2004) *Fair Admissions to Higher Education: recommendations for good practice*	A fair admissions system following 5 principles: 1. Transparency 2. Merit-based selection 3. Reliable and valid assessment methods 4. Minimise barriers for applicants 5. Professional structures and processes
The Panel on Fair Access to the Professions (2009) *Unleashing Aspiration: The Final Report of the Panel of Fair Access to the Professions*	Recommend that 'all universities take into account the educational and social context of pupils' achievement alongside attainment levels and aptitude tests to inform university admissions procedures'.
Chair: Robert Francis QC (2013) Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry	Found 'appalling suffering of many patients….the Trust Board did not listen sufficiently to its patients and staff or ensure the correction of deficiencies brought to the Trust's attention. Above all, it failed to tackle an insidious negative culture involving a tolerance of poor standards and a disengagement from managerial and leadership responsibilities. This failure was in part the consequence of allowing a focus on reaching national access targets, achieving financial balance and seeking foundation trust status to be at the cost of delivering acceptable. standards of care' (p3). One of the many recommendations was to 'enhance the recruitment, education, training and support of all the key contributors to the provision of healthcare, … … to integrate the essential shared values of the common culture into everything they do' (p5).
Ian Cumming, Health Education England (2013a) *Statement on Francis Inquiry*	'Recruit for values at all levels of the NHS'.

The Widening Participation agenda was introduced in 1999 and sought to address the disparity between the social classes in accessing Higher Education (HE) (HEFCE n.d.). In April 2004 this became integrated with the Excellence Challenge and Partnerships for Progression initiative to become the Aimhigher programme (Passy, Morris, Waldman 2009: 5). Aimhigher seeks to

> 'raise the aspirations and develop the abilities of young people from lower socio-economic groups, from under-represented minority ethnic groups and those with disabilities in order to widen higher education participation among non-traditional entrants'
>
> (Passy, Morris, Waldman 2009: 5).

The value of this initiative is not clear due to insufficient numbers within the data to enable a meaningful analysis (Passy, Morris, Waldman 2009: 5), however Moore, Sanders and Higham's later report (2013: i) identified that the trends in HE access and participation 'have been moving in the right direction'. This statement demonstrates a lack of hard evidence to support a desire to improve access, however suggests an improvement is felt, if not statistically proven. In considering occupational therapy education specifically, Watson (2013: 520) identifies that a commitment to widening participation in HE has contributed to a change in the profile of occupational therapy students, in particular an increase in mature students.

The Conservative and Liberal Democrat coalition government, which came into power in 2010, stated in their Programme for Government (Cabinet Office 2010: 31) a commitment to overcoming social disadvantage and increasing social

mobility within Higher Education. This led, in 2011, to the introduction of schemes such as the National Scholarship Programme. 2014 saw the launch of the 'National Strategy for access and student success' which recognises the need for widening participation to incorporate the whole student cycle (from application through to subsequent employment) thus making this study pertinent. This also acknowledges the challenges regarding ensuring access to Higher Education and highlights that there is no quick fix to these (Department for Business, Innovation and Skills 2014: 4). While there is a long standing understanding that academic autonomy is essential, allowing institutions to determine their own admissions criteria, it is important that all institutions acknowledge the government commitment that all students who have the potential to benefit from higher education should have an equal opportunity to do so (Department for Business, Innovation and Skills 2014: 3). This, therefore, is a challenge for professional courses.

An independent review, led by Schwartz (2004: 2), examined the options that HE institutions should consider when determining whether to progress an application within the admissions process. Schwartz (2004: 2) identifies that while it is widely agreed that applicants should be chosen on merit, defining this causes a difficulty. The author too has struggled to articulate and define the concept of a 'merit worthy' applicant and so this project seeks to define and articulate some of the merit worthy factors.

As outlined in Table 1, five principles of fair admissions are recommended by Schwartz (2004). In reviewing the impact of this report, the Centre for Education and Inclusion Research (2008: 17) found that many institutions

> ‘suggested that the Schwartz Report was not a major influence on the development of their admissions policies and process, however practice and policy has changed and the evidence suggests much of this change relates directly to fulfilment of the Schwartz principles.’

The author moved into the role of academic admissions tutor in 2009, and so is unable to comment from personal experience on this statement other than to state there are clear policies in place, adhering to the principles of the Schwartz Report, which support the admissions process outlined within the institution and cohort considered within this study.

While it is hard to quantify the specific value of the Schwartz report (2004), this and other contributing influences (such as the Data Protection Act (1998)) have led to the development of clear and transparent admission processes.

The Panel on Fair Access to the Professions (2009: 6) recognises that there is still a long way to go in ensuring social diversity within professions and states it is important for there not to be an over-reliance on the ‘traditional’ route to entry which is based on academic requirements. This study seeks to consider the other assessed factors within the admissions process which may act as indicators of a student with potential for academic success.

The findings of the Francis Report (2013) have had a significant impact through all stages of healthcare provision, including the recruitment and selection of students to study on courses leading to a healthcare qualification. In responding to the findings and recommendations of the Francis Report, Ian Cumming (Chief Executive of HEE) stated that all prospective students should

be ‘interviewed prior to being offered a place and they should also be subject to an assessment of their values and behaviours’ (HEE 2013: 2). This recommendation is now a requirement of NHS funded programmes. The course for consideration within this project has a well-established history of using group tasks within the recruitment process. For the academic year commencing in September 2015, significant changes were made to the recruitment decision making processes, in line with government directives, to ensure that assessment of personal values are explicitly considered within each component. While a variety of tasks were utilised within the recruitment process for the September 2013 cohort considered within this study, Values Based Recruitment was not explicit nor a requirement of the recruitment process at this time.

The five policy documents outlined (please refer to Table 1) influence the process of recruitment to a professional, healthcare course for an applicant. The Higher Education Institution needs to ensure that in recruiting to a BSc (Hons) full time Occupational Therapy programme appropriate processes are followed and recommendations incorporated, while balancing these with the need to ensure students show potential to succeed in their studies.

1.5 Delimitations of scope and key assumptions

This study is focussing on ‘successful’ Level One students and in particular consideration of their UCAS route of application. Successful students are determined as those who commenced full time studies on the BSc (Hons) Occupational Therapy programme in September 2013 and progressed into Level Two studies in September 2014. Not all of the students included within

the study have passed all Level One modules on their first attempt, but the majority have on the second (resit) opportunity. Some of the students are 'carrying' (i.e. not yet passed) up to 30 CATS credits into the second year of studies. This is either one or two modules totalling a maximum of 20 CATS credits. CATS credits are recognised by many Higher Education Institutions as a method for quantifying credit to a particular course (University of Oxford, 2014). The required credit for carried module(s) may not have been achieved due to academic failure or the module assessment being deferred to the next available submission opportunity. However these students are still considered as 'successful' as they have met the academic regulations allowing them to progress into the second year of studies. Additionally, the students included in the study applied for their place in the 2013 admissions cycle (i.e. not holding a deferred place). Table 3 summarises this information within the methodology section.

On conclusion of the study, it is anticipated that the findings will be generalisable to future admissions cycles within the occupational therapy programme at the Midlands university where the study was undertaken.

Limitations will be considered and documented throughout the study, however given that only 'successful' students are included, conclusions can only be drawn about the population of the students who successfully progressed into Year Two studies. This study is not considering retention of students, and does not seek to consider within its analysis emotional and non-assessed factors which may influence a student's progress in their studies. The study focusses on academic success.

1.6 Summary

As discussed, there are many influences to consider when recruiting to a healthcare programme. Academic admissions tutors have a responsibility to the funding bodies, and the Higher Education Institution to recruit applicants who demonstrate the potential to be fit for award, purpose and practice. It is also a priority to ensure students recruited to the programme are not at risk of attrition. It is the author's belief that academic admissions tutors also have a moral responsibility to the candidate to recruit those who demonstrate a potential to succeed. This research seeks to allow for a more informed (Lysaght et al 2009: 38) evidence-based admissions process particularly in relation to understanding the profile of students applying through different UCAS routes.

1.7 Working definitions

Locke, Spirduso and Silverman (2007: 17 and 29) identify the importance of defining key terms referred to within a thesis and also to ensure a systematic language is used. In order to ensure that no assumptions are made regarding the reader's understanding of the language used within this thesis key terms are outlined in the Glossary of Terms.

1.8 Outline of the report

Having introduced the context for the study, the thesis will now: present a **review of the literature and research** related to this subject area which has helped to broaden understanding and focus the research question (Chapter Two); offer a detailed exploration and critique of the **methodology and**

research methods (including ethical considerations) employed (Chapter Three); provide a detailed **analysis of the data** (Chapter Four); and subsequent **discussion** of this (Chapter Five) and finally the thesis will close with a **conclusion** of the results **recommendations, limitations of the study and suggestions for further research** (Chapter Six).

1.9 Justification for the research

There are two key reasons for undertaking this research.

Firstly, at a national level, the cost of healthcare education is significant. Health Education England invest £5 billion annually to fund the training and development of England's health-care workforce (HEE 2014: 3). The cost for Allied Health Professions (AHP) and occupational therapy, more specifically, could not be confirmed.

At both a local, HEI level, and NHS level, prevention of attrition is an important driver to ensuring the most appropriate students enrol on the programme of studies. The number of students who do not progress into the second year of studies, or complete the programme of studies has a financial impact on the university as they are financially penalised by Higher Education England and the cohort size is reduced, therefore having an impact on workforce planning. The overall attrition figure for students not progressing into the second year of studies for the university being considered within this study is 9.3% for the 2012/2013 academic year (HESA n.d. b). For occupational therapy the national attrition rate (at the end of the programme of study) for all occupational therapy COT accredited pre-registration programmes in 2010 is 12.3% (COT 2014a:).

Secondly, academic admissions tutors are one of the gatekeepers to the occupational therapy profession and need to strive to ensure the right people are selected, demonstrating the potential to progress through the education process. While neither HCPC or COT provide specific entry requirements or profiles for students commencing occupational therapy studies, there are clear guidelines about the required standards to be met on completion of a programme of studies and subsequent application for registration to use the title 'Occupational Therapist'. It is the role of the academic admissions tutor and recruitment team to ensure that there is an evidence base on which to base decisions regarding selection of candidates.

To the best of the author's knowledge there has not been, to date, any research which focusses on the unique factor of a candidate's UCAS application route and subsequent academic success. Therefore, the decision has been made to focus specifically on this aspect. An institutional drive to fully recruit to course numbers as soon in the application process as possible impacts on those candidates wishing to apply via UCAS Late or UCAS Extra (definitions in Glossary) routes. This is because these routes, which open later in the UCAS recruitment cycle, are potentially no longer available to applicants if they choose to apply later in the UCAS cycle. Consideration of the interview and academic profile of students applying via the UCAS Late and UCAS Extra routes will potentially be extremely valuable in considering the length of the recruitment cycle.

It is important to be clear that this project does not seek to identify a one-stranded profile of an ideal occupational therapy student. As specifically

outlined in COT's learning and development standards for pre-registration education:

> 'occupational therapy… graduates are not homogenous but rather reflect the richness and diversity of our profession, the contexts in which we practise and the individuals we serve' (COT 2014b: 1).

Instead, on conclusion of this research, it is the intention that a variety of key indicators will be identified and subsequently recommended for consideration within the admissions process.

Chapter Two

2 Literature Review

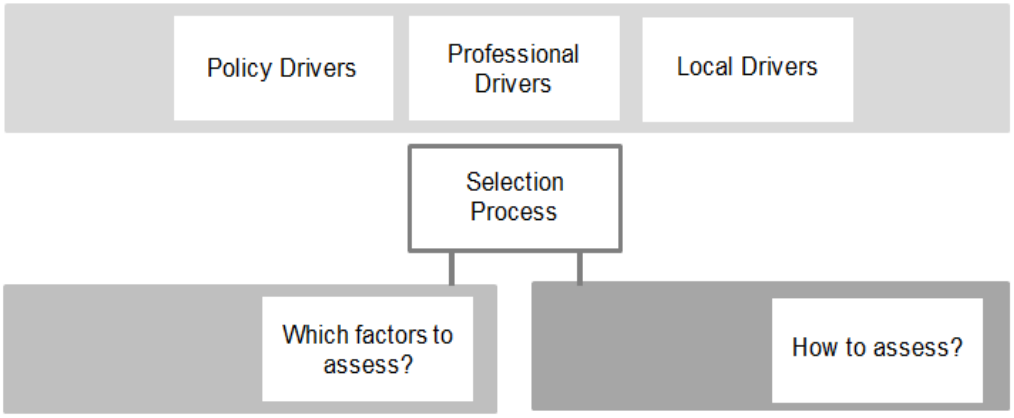
2.1 Introduction to chapter

Having provided an overview of how the literature was identified and selected for inclusion, this review of literature in the field of healthcare education recruitment, selection and retention will focus on three areas:

- An overview of admissions
- What should be assessed through the selection process?
- What assessment strategies should be employed to identify successful students?

These areas have been identified through consideration of available published literature and synthesis of their findings, and are shown pictorially in Figure 2.

Figure 2 Themes explored within literature review



As Callwood, Allan and Courtenay (2012: 835, 836) identify, the challenge in recruiting to a healthcare programme should not be under-estimated. An assessment of a candidate's potential to excel both at theory and in clinical practice is required with consideration of the candidate's potential to be fit for practice, purpose and profession always in mind. The factors assessed and the format of these assessments is a complex process (BMA 2009: 5) and this will be explored within this review of the literature.

It should be noted that the researcher was unable to identify any research which focussed specifically on the UCAS application route (as outlined in the Introduction) of the candidates and their subsequent outcome as a student on a healthcare programme.

2.2 Literature search and selection strategy

A comprehensive search of literature related to the research question was performed. English language works and research published within the last ten years (2004-2015) were the main focus in the initial identification of research. However, through extension of the date range to 1980, quality research articles published prior to 2004 were also given consideration allowing review of occupational therapy specific research which is scarce. In 1998 (p244) Howard and Watson noted a dearth of literature specifically regarding the recruitment and selection of occupational therapy students. This lack of available literature is also noted by Boak, Mitchell and Moore more than ten years later in 2012. Due to the continuation of this pattern, literature within the wider fields of healthcare and medical education was also considered. Tables 2a and 2b identify the databases and key search terms used within the literature search.

Table 2a Databases searched

Databases searched
Academic Search Complete (EBSCO)
AMED (Allied and Contemporary
Medicine Database)
ASSIA (Applied Social Sciences Index
and Abstracts)
CINAHL (Cumulative Index of Nursing and Allied Health Literature)
ERIC (Education Resources
Information Center)
HE Empirical
Medline
OT Seeker
ProQuest Nursing and Applied Health
Science
Psych Info
PubMed Central
SAGE Journals Online
ZETOC

Table 2b Key search terms

Key search terms	
Academic outcome*	Used in a variety of combinations within each database. *Denotes all appropriate variations of the word used
Admission*	
Applicant	
Course Outcome*	
Education	
Entry Characteristic	
Entry criteria	
Entry Level	
Healthcare Education	
Interview	
Medical Education	
Occupational Therapy	
Pre-Registration	
Predict*	
Selection	
Selection Measures	
Success	

In addition to the utilised databases, hand searching of occupational therapy specific journals, was undertaken to ensure a thorough search for relevant profession-specific literature and the reference lists of relevant articles scanned.

Identified articles were reviewed using the McMaster Critical Review Form (Law et al. 1998) as a structure for evaluation and exploration. Thirty one pieces of published work met the criteria for selection (please refer to Table 3).

Table 3 Inclusion and exclusion criteria for literature selection

Inclusion Criteria	Exclusion Criteria
Published in English language	Not published in the English language
Published between 1980 and 2015	Published outside this date
Related to education of Healthcare professional	Related to other professions and university courses

2.3 An overview of admissions

It is a balancing act to ensure national and local admission policies are considered, alongside a professional responsibility to recruit candidates who have the potential to be fit for purpose, practice and profession. Brindle's (1987: 113) work acknowledges that the recruitment process needs to identify candidates who will be successful on the course [fitness for award] and will go on to be successful therapists [fitness for practice]. Boak, Mitchell and Moore's 2012 literature review for the Health Professions Council (now known as the Health and Care Professions Council) identifies the lack of evidence regarding the early identification of students who are unlikely to have a 'successful' outcome for their studies.

The Widening Participation agenda (HEFCE n.d.), subsequent National Strategy for access and student success (Department for Business, Innovation

and Skills 2014: 4) and the recommendations from the Fair Admissions to Higher Education Report (Schwartz 2004) are drivers to seek to recruit students chosen on merit and aiming therefore to increase the number of students from under-represented groups.

Widening the population for selection (Bradley 2013: 202) thereby including students from poorly represented groups (Parker 2006: 400) will allow on completion of the education programme, a workforce which is more representative of the population it serves. This addresses the concern of Paul Grace, at that time President and CEO of the National Board for Certification in Occupational Therapy, Inc., (2007: 282) who identified that the occupational therapy profession will fail if a workforce is not developed that is reflective of society. While Grace was writing from an American perspective, his concerns are worthy of consideration in the UK. The Panel on Fair Access to the Professions (2009:25) also had concerns that professions generally were becoming more socially exclusive and that this was an issue for society. A culturally competent workforce is vital in ensuring the needs of the community it serves is met (Jordan et al 2002).

The current Learning and Development Pre-Education Standards published by the College of Occupational Therapists (2014c: 1) acknowledges the importance of diversity in education of occupational therapists recognising the 'richness and diversity' of the population occupational therapists serve.

Greenbank's 2006 study was undertaken at the same time as consultations were being undertaken for the development of the Schwartz Report, the findings of which were published in 2004. Greenbank's small survey found a reluctance

among prestigious Higher Education Institutions (HEI) to widen entry requirements and accept non-traditional academic qualifications due to the perception by others (including potential applicants) of lowering standards and the potential impact of lowering league table positions. He also found that where there is a demand for places, there is no driver to adopt a more flexible approach to entry requirements, however institutions reported they would do so when demand falls. The challenge for Higher Education Institutions must be in overcoming the association of, and reliance on, high entry grades from traditional qualifications with and for high calibre future healthcare professionals.

Greenbank's study explored Higher Education Institutions and did not explicitly research occupational therapy education providers. However with a demand for UK occupational therapy places of 4.39 applications to every available place in 2010/11 academic year (COT 2014a), it can be assumed there is no driver for occupational therapy education providers to further widen the admissions criteria and therefore increase the pool of applicants. However, due to the nature of the programme of studies and subsequent professional qualification, consideration does need to be given to potential occupational therapy students' professional suitability in addition to academic ability. While always committed to high quality education resulting in highly professional students (COT 2014c), the findings of the Francis Report (2012) have had a significant impact within occupational therapy education in ensuring that values are explicitly assessed within the selection process.

This, combined with educational reforms which Bradley (2013: 200) identifies may lead to applicants being motivated by the absence of course fees instead of a commitment to the profession, means that selection processes need to consider and assess more personal and subjective aspects rather than a traditional reliance on the objective measure of previous academic achievement. Bradley's opinion piece poses critical questions related to the changes in policy context which now require further exploration to identify if they should be substantiated.

Over the last 30 years, within the UK, there have been changes to occupational therapy education with the introduction in the 1990s of the BSc (Hons) programme in place of the diploma (World Federation of Occupational Therapists 2001) and the formation of the University and Colleges Admissions Services (UCAS) in 1994. UCAS provides a central admissions process for all candidates, standardising the information universities have at the point of application.

Academic admissions tutors need to ensure that they are considering the driving educational policies, alongside the professional requirements and health and social care agendas, as they undertake the challenge of recruiting students who they seek to predict will be successful both in their studies and as a professional. It is ensuring that these decisions are informed by a current evidence base which is proving complex due to a lack of consistency in research findings and limited pool of published research. While the research frequently supports the use of previous academic achievement as a predictor for future academic success (Lysaght 2009: 39), decisions based purely on this

information will not allow for a diverse profession and fulfil the Widening Participation agenda (HEFCE n.d.), nor assess a candidate's skills in relation to the values stated within the NHS Constitution (Department of Health 2013).

2.4 What should be assessed within the selection process?

It is frequently highlighted, and accepted, that the process of admitting students onto a programme of occupational therapy study, and more widely, healthcare professional courses, is complex and holds many challenges (BMA 2009: 5, Callwood, Allan and Courtenay 2012: 835, Lysaght, Donnelly and Villeneuve 2009: 38, Posthuma and Noh 1990: 286, and Timer and Clauson 2011: 605). Bradley (2013: 201) identifies that attempts to explore whether admission data such as grades and involvement in work experience can predict performance in practice placement have produced contrasting results.

The independent review, 'Fair admissions to Higher Education' (Schwartz 2004), recommended that applicants to HE courses should be chosen on 'merit'. However there is no consensus in occupational therapy, or wider, literature as to what factors are used to define 'merit' and so this poses the question as to what factors should be assessed through the selection process?

To provide an historical context/overview of the available published literature two pieces of research undertaken approximately thirty years ago will first be considered. Posthuma and Sommerfreund's (1985) work examined three cohorts (1978-80) of occupational therapy students in Canada. They found that both previous academic performance and overall interview performance were important indicators of a successful first year of studies. Interview performance

was particularly valuable in selecting the high school applicants, thereby introducing the age of the candidate as a consideration. Bridle's 1987 study, also in Canada, explored the same date range but examined student data across the full length of their occupational therapy training. Bridle's work found that selection using previous academic achievement was indicative of success during the programme, but taking the time to personally interview candidates may not be a valuable selection task. Both studies used students who were already perceived, through the selection process, to have 'potential' and so offered places to study on the programme. Therefore the question explored was to what extent they are successful. Both studies had similar sample sizes (n = 78-106) across three /four cohorts. While the findings of their work are important and have been well discussed by other researchers in the field, it must be acknowledged that the education system is different to that of the UK, and the culture of occupational therapy education worldwide has changed over the last 30 years as the profession has evolved.

Lysaght, Donnelly and Villeneuve's (2009) study reached the same conclusions as Posthuma and Sommerfreund (1985) and Bridle's (1987) older work in finding that a student's previous good academic achievement is indicative of success on a programme of occupational therapy studies. Their study focussed on identifying which admissions criteria best predict academic performance of pre-registration Master's level students. While their retrospective study is considering students who, usually, have already undertaken degree level studies they did not have pre-requisite courses which candidates must have completed and so students had varied backgrounds (like those of undergraduate students). Lysaght, Donnelly and Villeneuve's studies found that

a student's Grade Point Average (GPA), the cumulative average for all undergraduate academic work, on entry to the programme was linked to grades in the occupational therapy programme. Students with higher GPA averages on entry to the programme achieved higher grades within the occupational therapy Master's programme.

Howard and Jerosch-Herold's (2000) work was UK based and explored the success of undergraduate physiotherapy and occupational therapy students across the duration of their studies. This was a development of work published by Howard and Watson two years previously. The 1998 research explored only occupational therapy students from two cohorts, whereas the 2000 research examined three cohorts and included physiotherapy students. In focussing specifically on the value of A-Level Biology as an entry requirement and predictor of degree classification, they found no significant results. The expanded follow-up study by Howard and Jerolsch-Herold (2000) focussed more widely on all A-Level grades achieved prior to commencing the degree programme. 60% of the sample had achieved A-Levels. They found that though there was a weak positive correlation between entry score (for all students, not just those with A-Levels) and final degree score (test results not specified), there was no link specifically between A-Level grades and degree score ($r=0.047$, $p=0.639$) (p332). Students who entered with low A-Level grades still achieved high degree scores. However, it could be assumed (although not stated) that the students within this study (again, not stated) had all met the university entry requirements in order to have gained a place on the programme of study and therefore the question to be examined was 'does a

higher level of pre-programme academic achievement equate to higher degree results?'

As Howard and Jerosch-Herold point out, the way and factors on which a degree is assessed are notably different to A-Level grades, and so while there may be a (weak) relationship, could this be linked directly to the A-Level results, or the development of the student and their learning style over the three year period? Their study while exploring data from a significant number of students (n=168), is only focussing on those who have completed their studies, therefore by definition all are successful: the question is to what extent? Exploring the data of those who were unsuccessful would be of value, however there are many other subjective variables which impact on non-completion of a programme of studies.

Watson (2013: 521) also recognises the challenge presented in the literature by studies predominately focussing on students who complete their programme of studies. Her work is regarding the impact of background characteristics on the attainment of occupational therapy students, and in her literature review she also highlights that the inclusion in studies of students who do not complete their studies may lead to different findings.

Wharrad, Chapple and Price's (2003) study of six cohorts (n=181) of students undertaking a UK based BSc Nursing programme did identify attrition rates and provided an overview of the demographics of those who did not complete their studies (17.8%, n=34). Interestingly, over 50% (51.7%) of those with non-traditional entry requirements did not complete their studies. It is not stated at which stage they discontinued the programme. This is compared with only

11.9% of those with conventional entry requirements withdrawing or being withdrawn due to academic failure. No narrative is provided as to why the students left, but there is some indication of what students then did having left the programme and it would be valuable to explore this further. Wharrad, Chapple and Price do not identify any demographical data, or analysis of those who withdrew or were discontinued from their studies. This could have provided a valuable insight into other factors which impact on a student's progression through a programme of studies.

Wharrad, Chapple and Price also explored GCSE grades for their completing students. It was felt that GCSE grades and number undertaken show a range of knowledge in a variety of subjects as opposed to A-Levels which show depth of knowledge in a limited number of subjects. They found GCSE A grades to be a better indicator of degree performance than the A-Levels which are often so heavily relied upon when making admission decisions. While they acknowledge that further research is needed within this aspect of their study, it raises a valuable point regarding the possible over reliance of focussing on most recent or highest qualification, or indeed the specification of any academic criteria, by university admissions teams.

Continuing the theme of exploring traditional and non-traditional entry qualifications, Green and Waterfield (1997) studied physiotherapy programmes between 1990 and 1994. Although published 18 years ago, Green and Waterfield's work is still of significant value because of the lack of research in this area. In addition the level of undergraduate student study and accepted entry qualifications remain current, although assessment methods may vary.

Their comprehensive survey examined data from physiotherapy courses across the United Kingdom (UK) and Republic of Ireland exploring retrospectively entry qualifications and final degree classification.

As noted in the introduction to this thesis, there are no specified entry requirements for the occupational therapy profession, except those set by each Higher Education Institution. Likewise for physiotherapy, Green and Waterfield (1997: 472), note there is no specific admission criteria, and they identify how both applicants and the profession would benefit from the introduction of a baseline. With a 53% response rate they were able to collect data regarding more than 2000 Physiotherapy students (n=2495). Attrition rates were only approximately 2% for each school who participated in the survey thus showing that by and large all students were succeeding. Their final results showed that students with both traditional (A-Level) and non-traditional (Access and BTEC) previous academic achievement were equally likely to achieve high degree classifications.

It should be acknowledged at this point that there have been changes to the BTEC structure since Green and Waterfield's study with the introduction of the 'Next Generation of BTEC's' in 2012 and further amendments in September 2014 (Pearson 2012: 68). However, their findings are still relevant. While this information is valuable in terms of widening the pool from which physiotherapy students are recruited, candidates with non-traditional backgrounds are expected to meet the same level of qualification (i.e. comparable on the UCAS tariff) and so they are not suggesting that entry requirements be lowered. Green and Waterfield raise the question as to whether the large ratio of

applications to available places drives a rise in entry point requirements as schools can select those who are academically the strongest. Is this happening to increase the calibre of the student, or a simply a way to manage application numbers?

Again, examining only successful students Van Rooyen et al's (2006) study of student performance on a New Zealand nursing degree programme found there to be a link between pre-entry qualifications and performance in Level 1 and Level 2 bioscience papers, and there was a relationship between the age of the students achieving a high grade in the bioscience papers. Their study examined data from nine cohorts of students. The findings, exploring prediction of performance, especially in regards to the bioscience element of study were subsequently used to reject 'at risk' applicants from future intakes as they found that students require a sound knowledge of bioscience in order to make strong practice decisions once qualified. A study of this substantial size (n=619) must be regarded, however the results are about a very specific element of nursing education and a sample from just one university. As recognised by the authors, there are external influences experienced by students which cannot be excluded from having an impact on their academic performance across the two year period.

Also, similarly to Howard and Jerolsch-Herold's (2000) work, consideration should be given to the impact of the teaching students receive during their studies. This is not however a point made by the authors. Due to including only the students who completed both years of study successfully and had also earned their university place through meeting the academic entry requirements,

Van Rooyen et al's 2006 study, like the earlier work of Howard and Jerosch-Herold's (2000), is exploring the levels of success of the students rather than having a sample of students who do not meet the traditional entry requirements.

Furthermore Van Rooyen et al (2006: 597) considered the impact of age on success and found that an increase in the age of the student resulted in a higher performance in the Bioscience papers undertaken on the course However this was only for the A+ grades. For the B grade and lower that mean age then became less than the mean age. In addition, they found that younger students' (those under 20 years of age) grades improved in their second year of studies whereas mature students' (over 20 year of age) grades remained static. The reasons for this were not discussed. However anecdotally it would be the researcher's suggestion that students need time to settle into university studies, both in terms of the level of study and as they adapt to university life. It is worth considering adjusting entry requirements dependant on a candidate's age in light of Van Rooyen et al's (2004) findings regarding the continuity of results among mature students, but improvement in the younger students grades across the three years. If mature students' academic abilities are unlikely to improve throughout their time at university, then maybe there should be less flexibility in the academic entry requirements for mature students.

Howard and Jerosch-Harold's (2000) findings, that students entering with lower A-Level scores can go on to achieve high degree scores, support Van Rooyen's findings where students' grades increased in the second year of their studies.

Van Rooyen et al (2006) did not provide a breakdown of the mature students' academic history and correlate this to the bioscience paper results. This may have been valuable based on Shanahan's (2004) findings.

Shanahan's (2004) study of occupational therapy students in England and Wales, which was driven by the desire to understand if age at entry impacts on academic performance, found there to be no link between age and performance, but instead that previous academic studies provide a positive predictive effect on the academic performance of students, in particular those with previous degrees. This is the same as Green and Waterfield's 1997 findings. By removing those students who held previous degrees from her sample and then calculating if there was a link between age and degree performance, Shanahan found no link. However, when the students who held a previous degree, and by definition are mature students, were included in the study, there was a positive correlation. Shanahan believes these findings to be valuable in the development of new educational programmes for occupational therapy, including the development of accelerated programmes of study. Shanahan does not state, or explore the relationship between the timing of completion of the first degree, before then enrolling and completing the occupational therapy degree. Nor does she explore the teaching and learning methods employed within the programme which could potentially have an impact on performance.

Donaldson, McCallum and Lafferty's (2010) work with student nurses undertaking a Scottish programme of study, did find an significant link (a negative correlation) between date of recent study and success in their first year

of studies. Donaldson, McCallum and Lafferty's primary focus of their research was regarding the value of a newly introduced Interview Score Sheet (ISS) in predicting the success of nursing students on the Diploma of Higher Education (DipHE). They analysed data collected on completion of the common foundation programme (CFP) which is year 1 of the programme. In exploring six cohorts (n=638), their study found that 82% (n=520) did successfully complete the CFP. While it was found that there was a statistically significant relationship between the score of successful and unsuccessful students in the ISS at point of interview and their average academic score, the average scores were very close together and so the ISS was not considered to be a valuable tool for prediction. However, in exploring the data identifying if the student had recent academic success (this is not more specifically defined) and their academic average scores a significant level was identified within the t-test and a negative predictor for success determined (p652). Unfortunately their published work does not explore these findings further.

It can be seen that age has been found to be a predictor of success by several researchers. Further work needs to be undertaken to confirm this link in relation to occupational therapy education and if the correlation between age and academic success is based purely on age alone, or related to the additional factor of previous level of study.

Lysaght, Donnelly and Villeneauve's work (2009) has already been discussed in relation to grade point average. Their study also explored other data collected through the interview process including reference letters and candidates' letters of intent. Two confidential references were provided for each candidate. One

from an academic detailing the student's previous university level studies, and the other from a second academic or someone familiar with their job performance. Each were examined and given a numeric rating considering 12 characteristics. It was found that the numerical data (using a five point Likert scale) was positively correlated with performance within a communication skills course (p44). However the letter of intent, which is similar to the personal statement provided by UK applicants within their UCAS application, had a negative correlation and was not considered to be a good indicator of future success. The more objective perspective of the referee may be valuable in identifying a candidate's interpersonal skills. However, given that the relationship was only found within one element of academic studies, undue weighting cannot be given to the value of the reference. Bradley (2013: 201) acknowledges the potential value of references and being precise about the information required. She also acknowledges that the potential for change is 'critical'.

Within a student's programme of studies they are assessed on personal attributes and professional skills. While the author acknowledges that there is a process of learning and external influences, it is important that the academic admissions tutors can seek to gauge a candidate's potential in these areas. Therefore it seems logical that at the point of selection there should be an assessment of a candidate beyond their academic credentials.

Lyons et al (2006: 284) in their study identifying attributes which occupational therapy practitioners consider to be important in selecting occupational therapy students, explore and discuss if there is an undue emphasis on academic

attainment within the selection process. While they acknowledge that demand causes an over reliance on academic entry requirements, they put forward the point that occupational therapy education builds on attributes already held by potential students to develop a competent practitioner on completion of their studies. Therefore their study identifies the attributes which occupational therapy practitioners consider to be the most important for professional practice and should be shown by potential occupational therapists. Their findings make for thought-provoking reading. 'Verbal communication skills', 'problem-solving skills', 'does not use clients to meet own needs' and 'does not manipulate others for own benefit' score most highly. So the question left unanswered is how these skills, or the potential for these skills, is assessed within the selection process? Previous academic achievement will not ensure these attributes are present within candidates. As Lyons et al (2006: 291) conclude 'the future challenge is to find reliable, valid and practicable methods of measuring each of them'.

2.5 What assessment strategies should be employed to identify successful students?

There is no clear agreement as to which selection tool best informs the decision to accept a candidate onto a programme of study (Perkins et al. 2013: 465, Taylor, Mcduff and Stephen 2014: 1156, and Wilson 1999: 183) and what weighting should be given to each aspect of the admissions process (BMA 2009: 5). However, given that within the UK, in 2010, there were 4.39 applicants to each available occupational therapy university place valid and reliable assessments (Schwarz 2004) need to be in place to ensure the most

appropriate students are recruited to the limited places. Interviews are one of the most frequently used assessment methods by occupational therapy schools (Bailey, Hong and Wright 2006: 490). However, defining their value in selecting successful students has been the topic of several pieces of relevant research and Timer and Clauson (2011: 601) acknowledge the increase in universities incorporating non-academic criteria within their selection process. The focus of this section will be on the use of interviews, both the traditional interview and the more recent introduction to the admissions process, since approximately 2010, of Multiple Mini Interviews (MMI).

Brindle's (1987: 117) research with occupational therapy students supported the findings of Vargo, Madill and Davidson (1986) in finding little support for retaining the interview in the admissions process. Nonetheless, interviews continue to be an integral part of the admissions process for many occupational therapy and healthcare programmes, indeed national drivers (HEE 2014: 4) are now specifying that interviews should be used within the admissions process. Three decades on from Bridle's frequently cited work, Taylor, Macduff and Stephen (2014: 1157) explored selection processes for student nurses in light of the recent drivers (i.e. the findings of the Francis Report, and the Berwick Report) which have seen a push towards values based recruitment. Like Brindle, their study did not provide any substantive evidence about the value of interviewing, but did discuss the increasing evidence-base regarding the use of Multi Mini Interviews.

While there are a variety of assessment tools employed in the selection process, Multi Mini Interviews (MMI) are the most recent development. O'Brien

et al (2011: 397) explains how candidates complete a series of smaller interviews which allows consideration of a wider range of attributes and skills by the assessors leading to a more accurate understanding of a candidate's abilities. O'Brien et al's (2011) work seeks to compare the use of Multiple Mini Interviews with the traditionally used structured interviews. In their sample of 47 candidates who undertook both the traditional structured interview and the Multiple Mini Interviews they found there was no statistically significant difference in their results, indicating the Multiple Mini Interviews to be an equally reliable and valid assessment tool. However, there is no exploration as to the academic outcomes of those students recruited within the research process therefore the reader needs to assume that the structured interview is a tried and tested method of successfully recruiting potential medics. O'Brien et al (2011), recognise that a longitudinal study is required to explore this further.

Perkins et al's (2012) study within undergraduate nursing also found positive results from candidate and interviewers within the student experience, but this time in relation to the use of Multiple Mini Interviews. Callwood, Allan and Courtenay (2012: 835) introduce the Multiple Mini Interviews in their discussion in an editorial piece in Nurse Education Today. While they acknowledge that Multiple Mini Interviews are considered a reliable and fair assessment tool, they also consider the cost (financially and in terms of human resources) of administering this more complex assessment measure acknowledging the additional preparation time and additional rooms required. This is considered to be offset by the administration of the Multiple Mini Interview being quicker to complete than a more traditional interview format and therefore fewer people hours are required. Lyons et al. (2006) identify that interviewing candidates

(through any means), while often used within the selection process, is time-consuming.

A brief survey (asking just one question) of nursing recruits (n=890 candidates and 82 interviewers) by Perkins et al (2012: 468) found that candidates generally responded positively to the use of Multiple Mini Interviews and as a consequence the university has retained the use of this as a selection tool. The authors identify that students' progress through the course needs to be followed in order to identify predictive validity. Perkins et al's work explored the candidate's (and interviewer's) perspective on the 'experience' of Multiple Mini Interviews. This raises several questions as to how an interview, whatever its format, should be presented. Does the fact that candidates generally found the experience to be a more positive experience than traditional interviews mean that it is a format which should be continued? While there is no available published research in this area, the interview experience for a candidate logically must impact on their perception of the institution of study and therefore their choice whether to accept any subsequent offers to study there. The dual role of the selection process in both allowing the institution to make a decision to accept or reject the candidate and also for the candidate to make an informed choice as to where they would like to undertake their professional studies is an important consideration. Selection and recruitment days need to be appealing to the candidate in addition to providing reliable and valid assessment of the candidates.

The integration of service users (SU), and less recently practitioners, within university admissions programmes is a new and evolving addition to the

interview process. Values Based Recruitment Guidelines (HEE n.d.: 4) specify that it is good practice to ensure service users (SU) are involved in the recruitment and selection process of admission to health and social care professions educational programmes. There is little research in this area, however Rouse and Torney's work (2014) exploring the experience of services users being involved in the recruitment of nursing students, begins to establish an evidence base. This small scale piece of research examined the data from questionnaires given to service users (7%, n=5), practitioners (95, n=5), lecturers (13% n=23) and students who had been recruited onto the programme (34%, n=61). The questionnaire invited comments (using a Likert scale) about the whole selection day and included questions regarding the shared understanding of the SU's role within the interview process, responsibility for decision making and practicalities of the day. While overall it was felt that SU involvement benefited the whole selection process (p44) this study has only invited participation from those students who were successful at interview. This successful outcome combined with the imminent commencement of a programme of studies may have impacted on the feedback they provided. While it was felt that SU involvement is beneficial to the recruitment process, there is no research which identifies if SU involvement has enabled refining of the selection process and impacted on the quality of the student identified. It would be beneficial to explore if service users are seeking the same attributes in potential occupational therapy recruits as those identified by the occupational therapy practitioners in Lyon et al's (2006) research.

The research considered in this review predominately retrospectively analyses data from students who have been successful in their studies. There is limited

research in relation to the attrition of students and if this could this be predicted within the selection process.

Sadler (2003) explored data from admissions essays with 236 American students commencing a nursing baccalaureate program. She explored differences in the scores for the essays for those who completed their studies and those who did not. The essays involved candidates answering the following questions: 'Describe your health related work; Why are you interested in nursing; and What is a nurse?' (Sadler 2003:622). While there was a significant difference in the mean scores of the essays for the two groups (p626), there was not a specific point which allows distinction between students who were likely to complete and those who would not. Sadler did find though that there was a salient difference in the content of the essays with those who left the program discussing nursing as external to themselves, whereas those who completed internalised the role of the nurse. This recognises that students are commencing a programme of studies at a different starting points and with different relationships to the role and profession of nursing.

Salamonson et al's (2014) recent Australian-based study, explored the impact of choosing nursing as a first or second choice career. Their longitudinal cohort study (n=352) captured data from students over a six year period and examined the attrition rates across the maximum period of enrolment (6 years). Students who selected nursing as their first choice were more likely to complete the programme. While these results may not seem particularly surprising, the results do have implications for the use of UCAS Extra in allowing applicants to make applications to a wider range of courses and potentially make quick

decisions about alternative courses and/or professions to study if their first choice did not lead to an offer of a place.

2.6 Summary

There is, as yet, no published research exploring the UCAS route of the candidate's application and a potential relationship with academic progression. While it can be seen that more recent literature is exploring the new ways of assessing candidates, there is no conclusive evidence to support these methods in terms of recruiting a good quality applicant both academically and professionally. There is still reliance on demographic data and the challenge remains in ensuring a balance between the 'hard' skills in terms of academic level of ability and 'soft' skills related to personal and professional attributes required in the professional role of an occupational therapist.

Chapter Three

3 Research Methodology

3.1 Research scope

Through the analysis of a range of variables, this study seeks to identify which factors considered within the selection process could predict successful outcomes in Level One students within a full time BSc (Hons) Occupational Therapy undergraduate programme at a Midlands University.

A successful student, for the purposes of this study, demonstrates the following characteristics:

- has completed the first year of studies on a full time BSc (Hons) Occupational Therapy programme.
- has passed (achieving a grade of at least 40%) all modules, or is carrying a maximum of 30 credits of study into Level Two, in line with university academic guidelines (please refer to Appendix 4).

There are many subjective influences that could occur for the students over the duration of the admissions cycle and Year One studies which potentially impact on both their overall interview performance, entry level academic performance and subsequent academic performance. These are not considered within this research.

There appears to be no published research which specifically examines links between UCAS application mode and academic outcomes of occupational therapy students. This research seeks to address this shortcoming and offer a unique focus and insight into the mode of entry for applicants.

3.2 Research aims and hypotheses

In seeking to answer the overarching research question

> 'What are the assessed factors within the admissions process for a BSc (Hons) Occupational Therapy pre-registration course, which predict the outcome of a student's first year of studies?',

the aims of this study are:

- To examine whether there is a relationship between UCAS mode of application and Level One overall average academic grade *(Hypotheses 1, 3 & 4)*
- To examine whether there is a relationship between UCAS mode of application and Level One practice placement grades *(Hypotheses 2 & 4)*
- To identify if there is a relationship between UCAS mode of application and age of candidate *(Hypothesis 5)*
- To compare specific assessed components of the overall interview process with academic achievement in Level One with the purpose of identifying any significant relationships *(Hypotheses 7-12)*

Twelve hypotheses have been formulated and these are specified in Table 4. Data dredging (Bowling 2002: 123, Kent 2001: 186) will occur as further hypotheses are developed and outcomes determined throughout the data analysis process as required.

Table 4 Initial hypotheses

Hypothesis 1	There is a difference between a candidate's UCAS route of entry and their average academic grade.
Hypothesis 2	There is a difference between a candidate's UCAS route of entry and their practice placement grade.
Hypothesis 3	There is a difference between a candidate's UCAS route of entry and the number of modules passed on first attempt.
Hypothesis 4	There is a difference between a candidate's UCAS route of entry and the number of modules carried into Year Two studies
Hypothesis 5	There is a difference between a candidate's UCAS route of entry and age of the candidate.
Hypothesis 6	There is a significant difference between a candidate meeting the course academic entry requirements and their average academic grade.
Hypothesis 7	There is a difference between the score for a candidate's personal statement and overall year grade.
Hypothesis 8	There is a difference between the score for the group discussion of an occupational therapy related media clip within the interview and average academic grade
Hypothesis 9	There is a difference between the score for the practical group task within the interview and average academic grade.
Hypothesis 10	There is a difference between the score for the reflection within the interview's written task and average academic grade.
Hypothesis 11	There is a difference between the score for the occupational therapy specific questions within the interview's written task and average academic grade.
Hypothesis 12	There is a difference between the score for the writing style within the interview's written task and average academic grade.

3.3 Researcher's stance

The researcher has a role both within the field of occupational therapy and in particular university undergraduate admissions. 'Insider Research', while discussed more frequently within qualitative research (Unluer 2012: 2), is therefore an important consideration within this project. Through the use of effective supervision and a research log the researcher sought to remain as objective as possible in their approach. The knowledge of the admissions process and academic cycle brought by the researcher's role place her in a prime position to investigate the subject area and, if appropriate on completion, make evidence-based changes to the admissions process (Costley, Elliott and Gibbs 2010: 3).

3.4 Research methodology

An overview of the research methodology and methods will now be presented. Figure 3 provides a pictorial representation of the methodological framework.

Figure 3 Pictorial Representation of Methodological Framework

3.4.1 Conceptual framework

A positive paradigm has been adopted by the researcher reflecting the researcher's belief that there is a logical link between events (Wisker 2001: 123). This allows logical conclusions to be drawn with regards to factors assessed within the recruitment process which are evident within successful students.

It is the researcher's intention, through the data analysis process and verification of hypotheses, to be able to draw inferences from the data set which can be applied more widely within the researcher's field of work (Bowling 2002: 127, Costly, Elliott and Gibbs 2010: 85).

Bunniss and Kelly's (2010: 366) paper, focussing on medical education research studies, identifies the importance of the researcher's philosophical beliefs determining the chosen research methodology, in turn allowing the researcher to critically engage with the findings. Quantitative research methods are traditionally associated with a positivist methodology (Sim and Wright (2000: 69). Previous research studies within this field (Bridle 1987, Shanahan 2004, and Timer and Clauson 2001) have successfully adopted the survey approach within their quantitative research.

3.4.2 Methodology

The research methodology provides a framework for enquiry and systematic analysis (Berg 2001: 15). A survey methodology is considered a traditional option within a positivist approach (Cohen, Manion and Morrison 2005: 6). The term can be used both in consideration of the design of the research study

(Polgar and Thomas 2008: 66) and with regards to the collection and analysis of data (de Vaus (1991: 3). In this study, the term is used to discuss the methodological approach used.

As an exploratory and descriptive study seeking to enhance a body of knowledge, adopting a survey methodology allows the collection of information from a population to 'describe, compare or explain their knowledge, attitudes and behaviour' (Fink 2003a: 1). Evidence of control will be assured through the use of the same measurement tool within all interview tasks and a rigorous moderation and assessment process for student's assessed work. In addition data integrity will be maintained through ensuring that variables are not manipulated in any way (Sim and Wright 2000: 71).

A retrospective design has been implemented utilising descriptive historical data from records (Denscombe 2007: 12, Sim and Wright 2000: 82). This is a common survey approach (Hicks 1999: 23) and allows complete data to be available to the researcher. The influence and experiences of the 'historical conditions' occurring at the time which cannot be controlled and consequently may impact on the transferability of the information to the wider population are a challenge to this design (Bowling 2002: 201). This is addressed through researching one cohort allowing continuity in the student's interview and assessment processes.

Sim and Wright (2000: 61) identify difficulties of using documentary data sources. These include: some information being incomplete; practices may have changed since their creation; and deliberate distortion may have taken place. While these are important considerations and have been taken seriously

by the researcher, it is not felt that they impact on this research study. The reliability and validity of the data will be discussed in Section 3.6.6.

3.5 Research design

3.5.1 Research participants

The population being investigated within this research is one cohort, 2013-14, of students of a BSc (Hons) Occupational Therapy programme. The required data related to this population is accessible to the researcher as the academic admissions tutor for this programme of studies (Balnaves and Caputi 2001: 91). In order to ensure the population was representative, purposive sampling of one cohort of students (having applied inclusion and exclusion criteria) was employed (Bowling 2002: 187). Purposive sampling aims to access a group of people with a shared characteristic, in that all applied for and commenced one year of studies of the BSc (Hons) Occupational Therapy programme.

In deciding the population to be analysed, the following questions have been addressed:

- What is the rationale for examining one cohort of students only?
- What is the rationale for examining one year of studies only?
- What is the rationale for examining only one occupational therapy education provider?

In answering these key questions, thought has been given to the following practical considerations. The university in this study educates a significant

proportion of occupational therapy students within the United Kingdom (UK). The cohort totalled 177 students enrolling on the programme in September 2013. This forms approximately 13.9% of UK occupational therapy students at all levels and routes of study (based on data for the 2010/11 academic year) (Parkin 2014: 6).and is therefore a substantial proportion of the population. In examining one year/cohort of students, data can be analysed and findings disseminated in a timely way. Recommendations to extend the cohort through their entire undergraduate programme may later be appropriate on conclusion of this study. Examining more than one education provider adds the challenge of the variety of assessment tools and processes employed which may impact on the validity of the findings and ensuring congruence within data analysis.

3.5.2 Inclusion and exclusion criteria

Exclusion and inclusion criteria were applied with appropriate justification (please refer to Table 5) which lead to 83.62% (n=148) of all possible participants (n=177) being included in the study and data analysis.

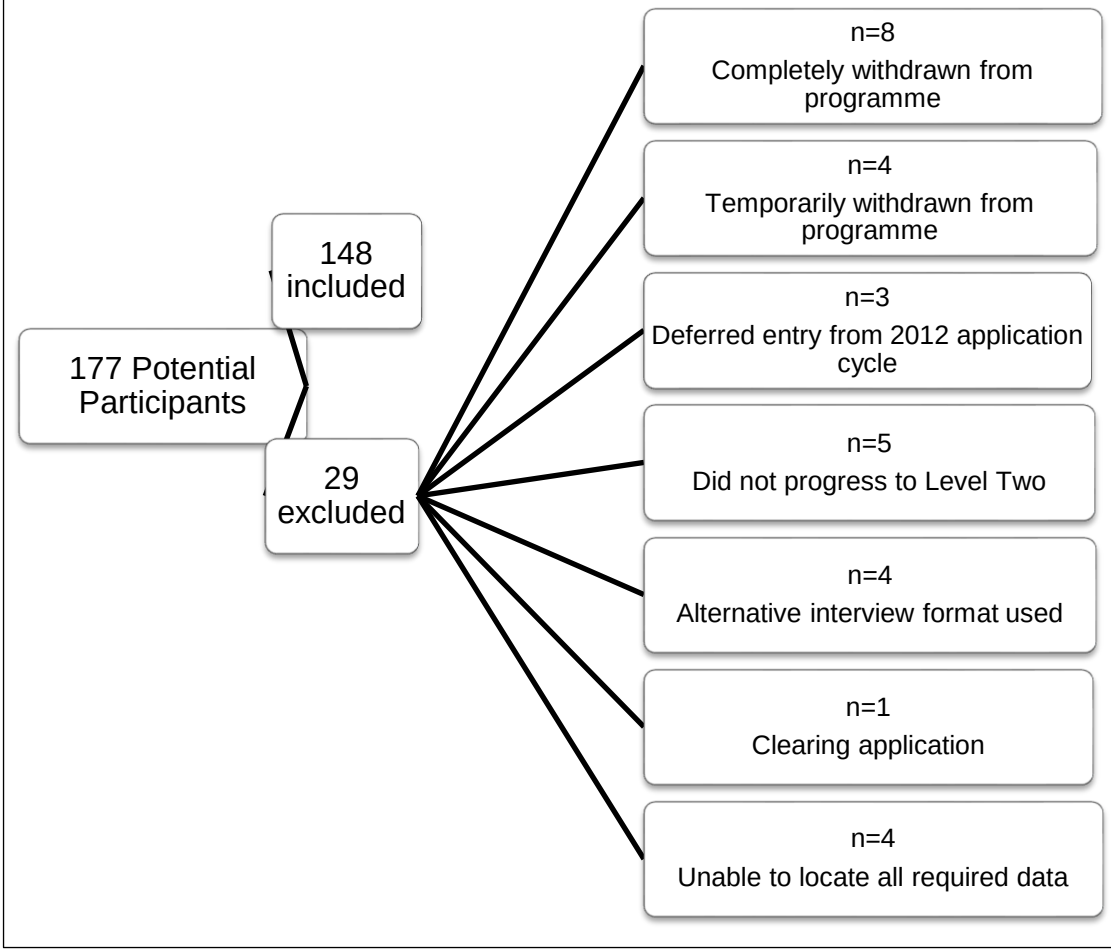
Continued…

Table 5 Inclusion and exclusion criteria

Inclusion Criteria	Exclusion Criteria	Rationale
A member of the 2013 entry cohort of the Full-Time BSc (Hons) Occupational Therapy programme.	Students who are enrolled on any other programme of study.	This is a single cohort study.
Applicants who applied between September 2012 and September 2013 for September 2013 entry.	Candidates who applied outside these dates.	Mid-September – September 2013 was the UCAS application cycle for September 2013 entry. Candidates who applied in the 2013-14 admissions cycle for 2014 entry had not yet commenced the programme and would be part of a different cohort. Candidates who applied in the 2012-13 admission cycle and therefore had a deferred place will have undertaken different tasks within the interview process and so cannot be compared alongside those who were interviewed within the 2013-14 cycle.
Candidates who applied via on-time UCAS, UCAS Late, UCAS Extra.	Candidates who applied via any other route (e.g. Clearing).	There are no alternative routes. Candidates who applied via clearing did not have the same interview (most commonly a Skype or telephone interview).
Candidates who were interviewed in person at the university.	Candidates who were interviewed via another means (i.e. Skype/Telephone).	To ensure continuity in assessment tools used during the interview.
Students who have progressed into the second year (Level Two) of their studies.	Students who have temporarily or completely withdrawn from the programme. Students who have not been allowed to progress into the second year of their studies due to academic failure.	These students are not considered as ‘successful’ and therefore excluded from the study.

A total of 177 students commenced full time Level One BSc (Hons) Occupational Therapy studies in September 2013 and therefore their records were potentially eligible for inclusion within the study. Twenty-nine student records were excluded. The records of 148 students were included in the study. Figure 4 provides a breakdown of the student records and exclusion reasons for those not included within the study.

Figure 4 Tracking of eligible participants



3.5.3 Preparatory study

A preparatory study reviewing the data entry systems was undertaken prior to fully completing the data entry. While this was not a full pilot study as no data

were analysed it served the purpose of ensuring the data entry systems were appropriate, consistent and accurate. Sim and Wright (2000: 72) support the use of a 'pre-test' such as this in seeking to ensure validity. This tests the content validity of the measure, allowing a small random sample to be collected and inputted using the measurement tool. Seventeen records, 10% of total potential participants, were included within the pre-test and all of these were included in the final project. Following the pre-test the data coding document was amended to ensure continuity of data entry as some inconsistencies had been noted, and additional data were subsequently collected and calculated to ensure the available data was being used effectively to maximise its value. The changes made as a direct consequence of the preparatory study are cited in Table 6.

Continued …

Table 6 Amendments following preparatory study

	Observation	Action
1	Lack of clarity in work experience question meaning inconsistency of responses.	Question changed to 'Has the participant already got work experience at point of interview?' and all entries checked for consistency.
2	Identification of duplication of information as 'month of birth' and 'date of birth' was collected in addition to 'age on 1st September'.	No action taken and data continued to be collected.
3	Lack of consistency in entering BTEC qualifications. Due to the variety of level of qualifications and subject areas within this suite of qualifications there were discrepancies in how the data was managed.	Three clear categories were created: Health and Social Care; QCF BTEC Extended; and BTEC (other subjects and levels). All data were reviewed and re-inputted as appropriate in line with the new (clearer) categories.
4	No allowance for those who: passed a module on the second attempt, deferred a module; or were 'carrying' a module (not yet passed) into the second year of studies.	Additional categories were included and so the full choice of categories is identified below: On what attempt was the module passed? First submission Resit submission Defer Carried into Level Two.
5	As a direct consequence of Consideration 4, an additional set of data needed to be collected to capture those who carried a module (s) into the second year of study.	Additional category titled 'Number of modules carried into Level Two' was created.

3.5.4 Data Collection

Through the use of two primary sources, data were collected retrospectively. The sources used were: the electronic data management system used at the

Midlands University for all course applications; and the 'Applicant Decision Sheet' (please refer to Appendix 3 which is used by the occupational therapy team throughout the recruitment process).

Descriptive data were collected and inputted into SPSS. Data coding was used to manage the data collection process and a data coding document established which incorporated de Vaus' principles to ensure a systematic record was made (1991: 245). A copy of this can be found in Appendix 5. A code was allocated for every possible answer as the likely responses were known to the researcher and were systematically applied for each student record (Sapsford 2011: 130). The raw data set was then cleaned allowing any errors in data entry to be identified and corrected as appropriate (Osbourne 2013: 10).

Codes were established for missing data in line with Panter and Sterba (2011: 378) who emphasise the importance of researchers 'proactively planning' for missing data and keeping a note at the point of identification of this as to the reason why it is missing.

It is important that research instruments are considered in relation to the level of measurement they will achieve (Bowling 2002: 144). Due to the retrospective nature of this project, the measurements are pre-determined, and provide mostly nominal, ordinal and interval data.

3.5.5 Data analysis

Data analysis was carried out using IBM® SPSS® Version 22 (IBM 2013). This is a statistical analysis and data management product (Szafran 2012: 28). Its' development 'revolutionised sociological practices' as SPSS allows complex

analysis of data in a time efficient way (Hinton, McMurray & Brownlow 2014: xi, Wellman 1998: 1).

Having entered the data using numerical coding (please refer to Appendix 5), descriptive and inferential statistical analysis of the data was undertaken with any missing values being omitted from calculations. A statistical significance level of 5% (p=0.05) was set by the researcher. This significance level is often utilised in social science research and an accepted research convention (Szafran 2012: 298, Taylor 2007: 50) .

Inferential statistics using parametric tests allow analysis of the data to test hypotheses (Hicks 1999: 55). Hypotheses were devised (as outlined in Section 3.2.3) and tested. Table 7 identifies the predominant statistical tests which were applied to the data and each shall be considered in turn to explain the purpose of the test and provide a rationale for its use.

Table 7 Inferential statistical tests used within data analysis

Statistical test
ANOVA. Unrelated Analysis of Variance
Descriptive statistics
Mean
Tukey
Unrelated t-test

3.5.5.1 Unrelated One-Way Analysis of Variance (ANOVA)

The significance value (and therefore the decision to accept/reject the Null Hypothesis) was identified through completion of a Unrelated One-Way Analysis of Variance (ANOVA) for all hypotheses except hypothesis 6. The

unrelated ANOVA test is a parametric test used to compare three or more groups of continuous variables (Knapp 2014:120). It allows examination of the effect of 'one or more discrete independent variable, known as factors, on an interval/ratio dependent variable' (Szafran 2012: 405). ANOVA is appropriate to use as it allows identification of differences within data that is of an interval and ratio level (Hicks 1999: 183). To identify where the differences lie a post-hoc test (Tukey) was utilised.

An example of the results presentation of an ANOVA is shown in Table 8 for exploration of Hypothesis 1i.

Hypothesis 1i	There is a difference between a candidate's UCAS route of entry and their average academic grade.

Table 8 ANOVA of route of entry and average grade including placement

ANOVA

Average Grade (including placement)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	196.190	2	98.095	3.097	.048
Within Groups	4592.482	145	31.672		
Total	4788.672	147			

3.5.5.2 Descriptive statistics

Data were initially analysed using the technique of descriptive statistics allowing the results to be described in terms of 'their most interesting features' (Hicks 1999: 56). This allows concise presentation of the data (Knapp 2014: 56). A descriptive statistic is one which 'summarizes the values on one or more variables for the cases in a data set and only the cases in the data set' (Szafran 2012: 407). Descriptive analysis of the data allowed some comparison to the

wider occupational therapy student population utilising data produced by the College of Occupational Therapists (2014b).

3.5.5.3 Mean

The average score in a set of data, the mean, has been used throughout the data analysis process (Hicks 1999: 295). Within the descriptive statistics the mean has been calculated as a measure of central tendency to allow comparison to similar datasets (Szafran 2012: 409). This is a useful measure as it allows quick appraisal of a set of results, however care must be taken as it can be misleading due to variables within the dataset becoming hidden.

3.5.5.4 Tukey

The Tukey method is one of many methods, which generally reach the same conclusions, for completing post hoc multiple compassions and it uses a similar method to the t-test (Szafran 2012: 345, Hinton, McMurray and Brownlow 2014: 153). It was selected under advisement from the statistics support tutor at the researcher's institution of study. This test allows the researcher to see where the statistically significant pairs are within the variables analysed. An example of the results presentation of a Tukey test is shown in Table 9 for exploration of Hypothesis 1i and the statistically significant pairs are emboldened.

Continued…

Table 9 Post Hoc Tukey completed for hypothesis 5

Multiple Comparisons

Dependent Variable: Age on 1st Sept 2013

Tukey HSD

(I) UCAS application route	(J) UCAS application route	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
UCAS	UCAS Late	-7.146*	2.267	**.006**	-12.51	-1.78
	UCAS Extra	-2.100	2.126	.586	-7.13	2.93
UCAS Late	UCAS	7.146*	2.267	**.006**	1.78	12.51
	UCAS Extra	5.046	2.941	.203	-1.92	12.01
UCAS Extra	UCAS	2.100	2.126	.586	-2.93	7.13
	UCAS Late	-5.046	2.941	.203	-12.01	1.92

*. The mean difference is significant at the 0.05 level.

3.5.5.5 Unrelated t-test

Hypothesis 6 was calculated through use of an independent sample t-test and this will be shown when presenting hypothesis 6. A t-test is very similar to the ANOVA with the exception that this parametric test compares two groups of continuous variables with each other and was therefore the appropriate test to select for determining hypothesis 6 (Hicks 1999:288, Knapp 2014:120).

3.5.6 Reliability

The reliability and validity of the research was considered throughout its implementation. In order to ensure the learning from this research is valuable it is important that the research is deemed trustworthy. As Roberts (2006: 41) identifies, this is dependent on ensuring appropriate procedures are followed in all stages (including the initial research question development, data collection and analysis methods and in drawing conclusions).

Reliability is considered within this research both in terms of consistency of the data collection and also the inter-rater reliability of the assessment tools used to form the student records. The measures employed need to be stable in order to ensure their reliability (Sapsford 2011: 16) and produce the same results within repeated measuring (Aaronson and Burman 1994: 68).

There are three aspects which shall each be considered in turn: the scoring of applicants interview performance and personal statement; the recording of applicant data within the data collection process and; the allocation of grades to student's work.

3.5.6.1 Scoring of interview performance

The interviewers (a member of the subject teaching team and an occupational therapy practitioner) score candidates on their performance for each element of the interview process. The score is determined using a five point ordinal Likert Scale (Hicks 1999: 224) where a grade of 'poor', 'satisfactory', 'good', 'very good' or 'excellent' is awarded. The provision of a detailed narrative within each of the scale points seeks to minimise the risk of subjectivity in grade allocation, however this risk cannot be removed entirely and inter-rater reliability cannot be fully assured (Sapsford 2001: 107). A blank copy of the Applicant Decision Sheet can be accessed in Appendix 3. An extract of the sheet is shown below in Figure 5.

Continued…

Figure 5 Applicant decision sheet snapshot

	Excellent (E)	Very Good (VG)	Good (G)	Satisfactory (S)	Poor (P)
Personal Statement	As v good but written about with meaning e.g. they develop their own personal experience within the statement. They have explored the concept of what OT is all about & have related this comprehensively to their own personal experience.	Explores the concept of what OT is about e.g. they have a keen interest in helping others, the use of activity to increase independence , they want to work in a caring or challenging profession.	They are more aware of why they want to study OT(e.g. personal experience), but unable to give any depth to this	Have a biased idea of why they want to study OT, maybe too focussed on one aspect of the profession	Tentative. Wants to be a health professional but not specified OT. Lacks commitment to the profession

The following strategy was employed to ensure a high degree of inter-rater reliability. Preparatory training of academic staff members and 'on the day' briefings for academic staff and all practitioners was provided at every interview forum. Additionally, detailed written guidance was provided within the Applicant Decision Sheet to support academic staff and practitioners in awarding grades for the candidate's interview performance. Tutors and practitioners involved in the interview process were encouraged to discuss with the academic admissions tutor all candidates. The academic admissions tutor frequently observed the interviews and subsequently discussed their observations and jointly graded with interviewers on occasion. An academic admissions tutor was present at all interview forums and so able to offer continuity across the forums.

3.5.6.2 Recording of applicant data

Reliability within the drawing together and inputting of data from student records within the data collection process is ensured through the use of a data coding guide (Appendix 5). The reliability of the guide was ensured within the preparatory study (refer to section 3.5.3). This meant that all data were inputted

in the same way using the same coding structure. Only one person was involved in the data inputting process and so this also minimised the risk of any inconsistencies in data inputting and therefore ensured intra-rater reliability of the recording of the data.

Where it was identified that interviewers had scored a candidate at more than one grading in an component for example 'Good/Very Good' the higher grading was inputted. This ensured consistency within inputting and prevented the data from being excluded all together. It was felt that if interviewers considered the candidate to be worthy of consideration of a higher grade, this should be the grade awarded.

3.5.6.3 Allocation of grades to student'

In accordance with university regulations a percentage grade is allocated for each module of study a student is assessed within. There are rigorous internal and external moderation processes to ensure that grades are allocated appropriately reducing subjectivity and ensuring reliability (Coventry University 2013a).

3.5.7 Validity

The validity of this work has been addressed in two ways. Firstly face validity, the credibility of data collection is assured through the sample population being representative of the population at the time of the study (Roberts 2006: 43, Sim and Wright 2000: 126). An entire cohort of students was selected for the study rather than a proportion of them. Secondly content validity, consideration of the scope of the data collection tool, is assured through the collection of data of all

aspects of the interview process and academic performance within Level One studies (Sim and Wright 2000: 126).

3.6 Research approval

The study was deemed 'low risk' and approval from the researcher's institution of study was received on 28th March 2014 (Coventry University 2009: 14). A copy of the Ethics Review Feedback form can be found in Appendix 6.

The researcher has conducted the project in an ethical manner upholding the highest levels of integrity in line with Coventry University's 'Principles and Standard of Conduct on Governance of Research' (2013b). Access to the records required for data extraction was obtained with permission from the gatekeeper. All data, both electronic and paper, will be destroyed on completion of the research study.

3.7 Ethical considerations

3.7.1 Practical considerations

Anonymity of the student records is assured in two ways. Firstly all data were anonymised and each student record allocated a random number. The researcher is the only person to have access to a password protected spreadsheet which identifies student name and allocated number.

Anonymity of the data will further be assured through sensitive presentation of results. Within descriptive statistics there is a minimal risk of student identification. For example there are very few men within the cohort and so only data where confidentiality can be assured will be presented.

Confidentiality of data is assured through all paper copies of records being kept in a locked drawer within a secure office environment. All data held on electronic records requires a valid and unique username and password to access.

3.7.2 Rationale for use of data

This research utilises data that was originally collected for the purpose of recruitment and selection to the BSc (Hons) Occupational Therapy programme. This is stored in the researched university's databases. The analysis of this data is referred to as 'secondary analysis' by Dale, Wathan and Higgins (2008: 520) who recognise the increased availability of datasets such as this. They acknowledge the 'inherited responsibility' of accessing this type of data particularly in relation to maintaining confidentiality and professional conduct (Dale, Wathan and Higgins 2008: 529). The data has been used responsibly and additionally accessing the data was a pragmatic decision which made effective use of the researcher's time.

The researcher has made careful use of supervision throughout the research planning and implementation stages in line with Mertens' belief that ethical issues are 'an integral part of the research planning and implementation process, not viewed as an afterthought or a burden' (1998: 23).

Chapter Four

4 Data Analysis

4.1 Introduction to chapter

This chapter provides a concise overview of the data. Through the presentation of descriptive statistics the data set will be introduced and each hypothesis then addressed in turn.

4.2 Overview of study population

Records from 148 (n=148) students, who met the inclusion criteria, were considered. To contextualise this overview, in the graphs below, the data from the Midlands university is presented alongside data from the College of Occupational Therapists (COT, 2014b) 'Report of the Annual Monitoring of Accredited Pre-registration Programmes, Academic Year 2010/11'. This is the most recent published data allowing comparison of the researched sample to the wider United Kingdom occupational therapy student profile. It should be noted that the COT data, unless stated otherwise, refers to new first year, students on all available routes of study. These are full-time, part-time, in-service and accelerated routes. Therefore the data are not always directly comparable to the surveyed cohort, but the information remains valuable and offers a context to the Midlands university data.

4.2.1 Gender of sample

Table 10 Gender of sample compared to COT data

	Sample Population		COT Data – Full-Time New Starters 2010 Academic Year	
	Frequency	Percent %	Frequency	Percent %
Female	134	90.5	1229	79.6
Male	14	9.5	123	8.0
Not Stated	0	0	192	12.4
Total	148	100	1544	100

Graph 1 Bar chart showing gender of sample in comparison to COT data

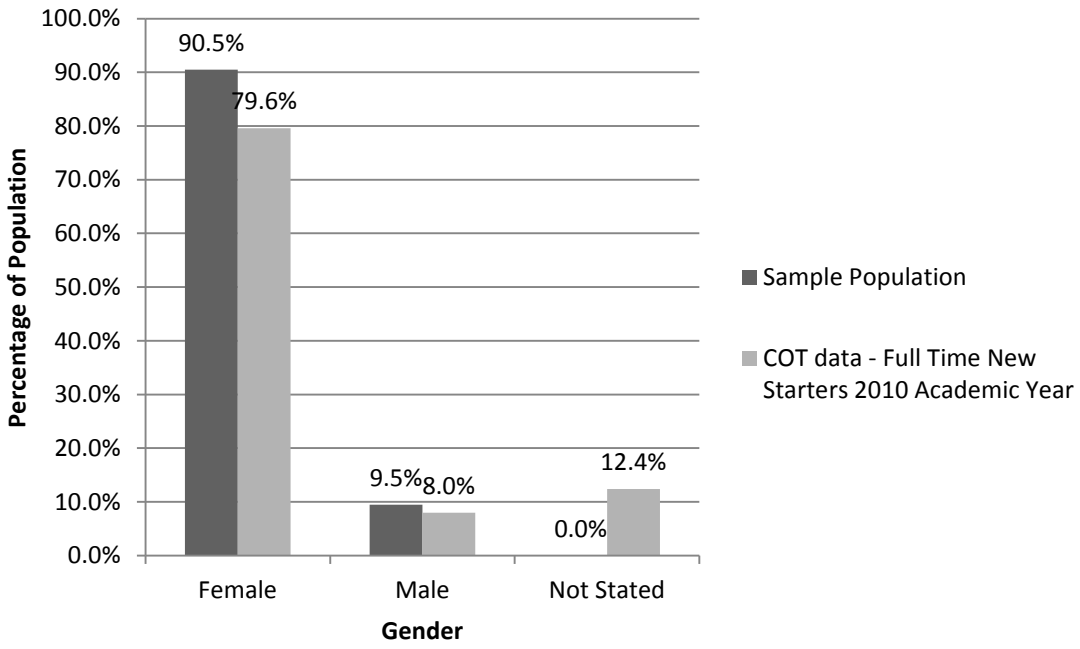


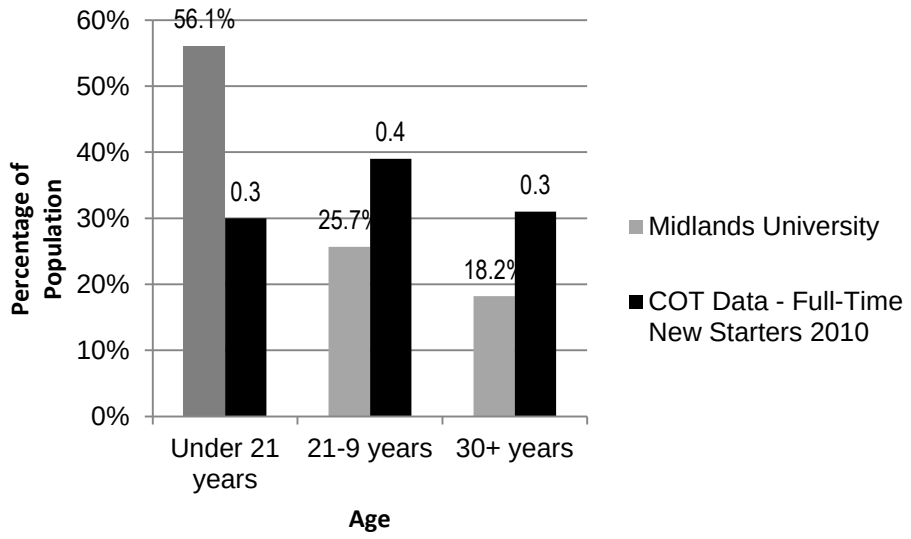
Table 10 shows the gender of the sample with 95% (n=134) of the sample identifying their gender as 'female' on the UCAS form, and 9.5% (n=14) as 'male'. Graph 1 shows this visually allowing comparison with COT data. This data shows that the surveyed cohort is likely to be representative of the wider student occupational therapy population.

4.2.2 Age distribution of sample

Table 11 **Ages of sample compared to COT data**

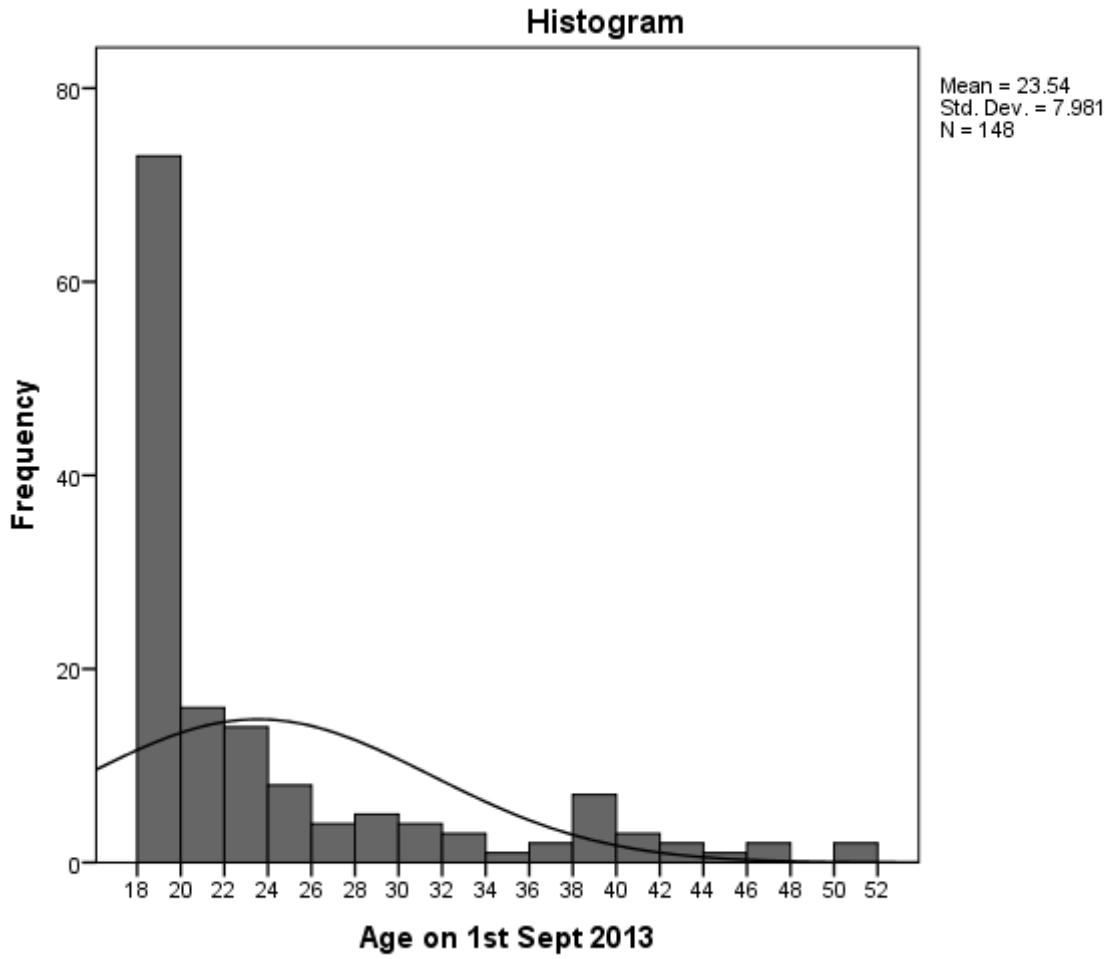
	Sample Population		COT Data – Full-Time New Starters 2010 Academic Year	
	Frequency	Percent %	Frequency	Percent %
Under 21 years	83	56.1	Not stated	30
21-29 years	38	25.7	Not stated	39
30+ years	27	18.2	Not stated	31
Total	148	100		100

Graph 2 **Bar chart showing age of sample in comparison to COT data**



Continued…

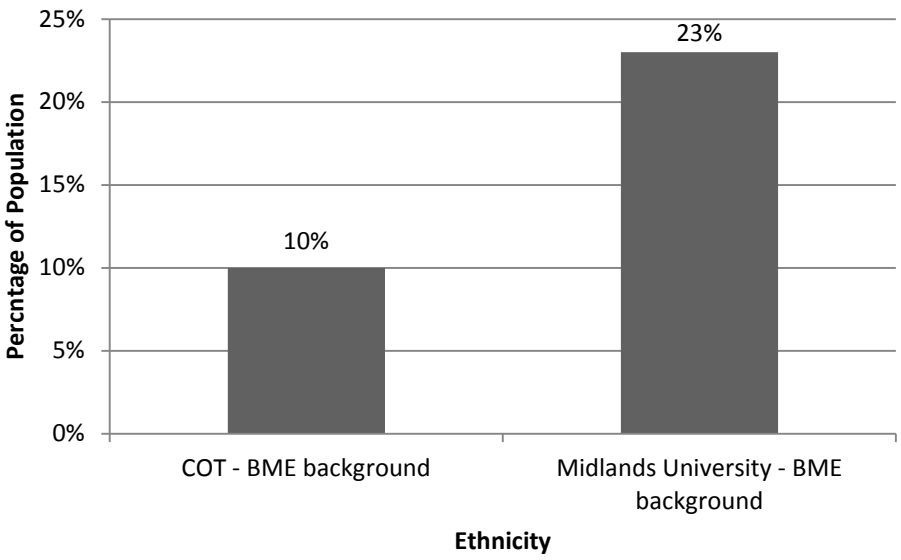
Graph 3 Histogram showing age distribution of sample population



Graph 3 (a histogram) shows the age distribution of the Midlands university sample. As the population is a university cohort, the minimum entry age is 18 years old. It is also expected for the majority of students to join the programme at age 18 due to the structure of the education system. Students aged 21 or over on entry to the programme are considered to be 'mature students'. Table 11 and Graph 2 show the breakdown of the sample population in relation to COT data, This shows that the surveyed university has a younger population than that of the wider occupational therapy student population for 2013 entry.

4.2.3 Ethnicity of sample

Graph 4 Ethnicity of sample

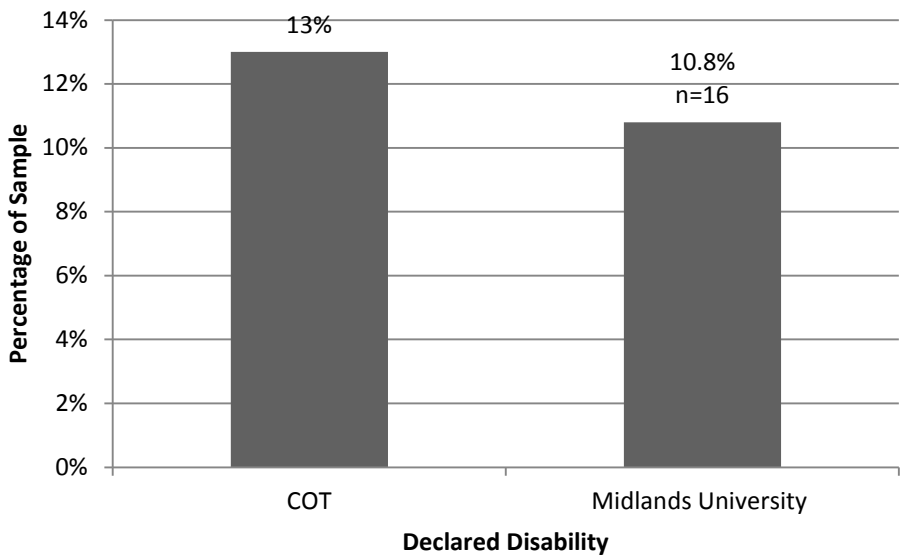


A comparable breakdown of ethnicity data is not available from COT. It can be seen in Graph 3 that the Midlands university sample has a significantly higher proportion of students from a Black and Minority Ethnic background (n=34). A full breakdown of the data for the researched cohort has not been shown to maintain confidentiality as several of the ethnic groups had only one or two students who identified themselves as this ethnicity.

Continued…

4.2.4 Declared disability within sample

Graph 5 Declared disabilities of sample



In 2010, 13% of all new students declared a disability (COT 2014b). The exact number isn't specified. For the Midlands university considered within this research, the figure stands at 10.8% (n=16). This data shows that the surveyed cohort is likely to be representative of the wider student occupational therapy population in respect of declared disabilities.

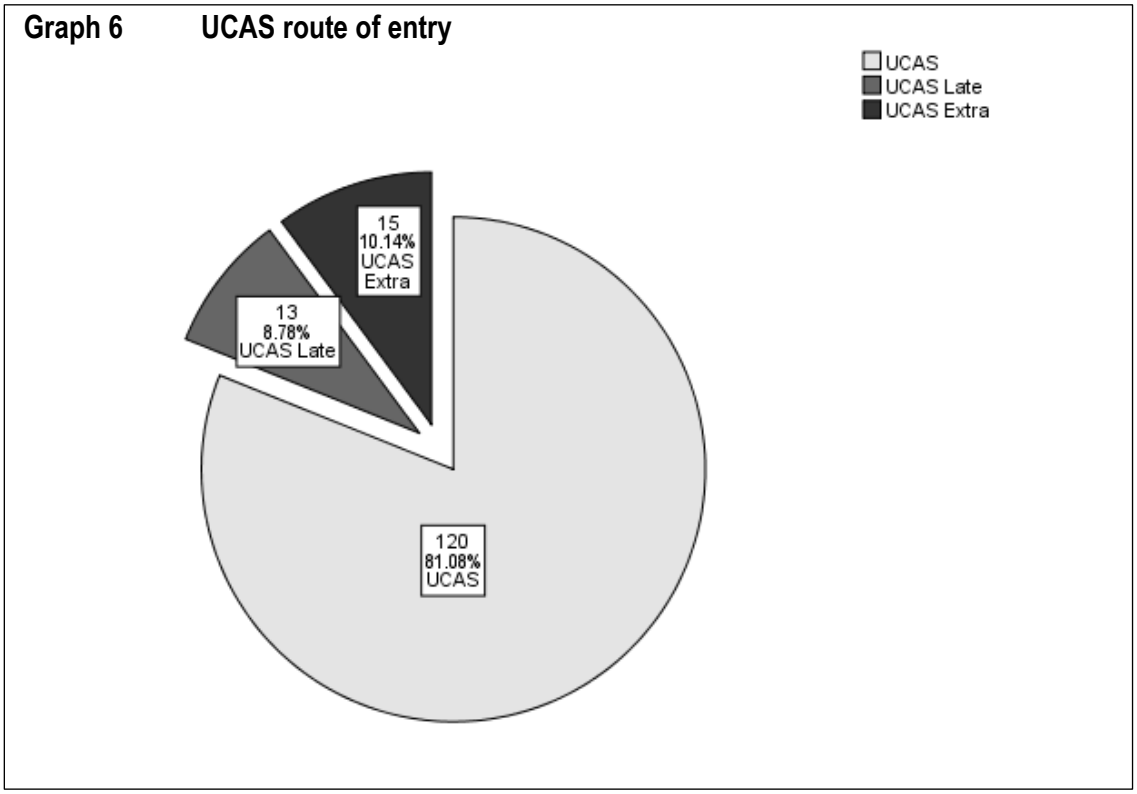
4.2.5 Qualifications

The sample analysed has achieved a wide range of qualifications. Data were collected to identify the highest qualification of each candidate (and year achieved) and the most recent qualification (and year achieved). A-Levels, Degree, Access to Higher Education and Health and Social Care QCF BTEC Extended Diploma were the most popular qualifications with over 86% (n=128) of the sample achieving one of these as their highest qualification. 79.7%

(n=118) of the sample had achieved one of these qualifications most recently. A detailed breakdown of qualifications can be found in Appendix 7.

4.2.6 UCAS route of entry

Graph 6 UCAS route of entry



As expected, the majority of candidates applied via a on-time UCAS application Of the 148 records: 81.1% (n=120) applied via the on-time UCAS route, 8.8% (n=13) via UCAS Late and 10.1% (n=15) via UCAS Extra. This data is represented pictorially in Graph 6. There is no comparable data from COT or UCAS.

4.2.7 Summary of study population

The data presented in Graphs 1 to 6 shows that the analysed cohort is likely to be representative of the wider population of UK new student occupational therapists (OT) in terms of gender balance and declared disabilities. However, the age distribution of the cohort is different compared to COT data. This could be accounted for due to COT data including all routes of study, several of which are only available to mature students. The Midlands university sample has a considerably higher proportion of students from a Black and Minority Ethnic background. A full breakdown of each demographic can be found in Appendices 8, 9 and 10.

4.3 Exploring hypotheses

The twelve hypotheses were explored in turn. A statistical significance level of 5% (α=0.05) was set to reject the null hypothesis. This is a typical level for social science research (Knapp 2014: 99) and indicates a less in one in 20 chance of the alternative hypothesis being incorrect.

The table in Appendix 11 provides an overview of all hypotheses, test applied, significance value (p) and the decision whether to accept or reject the null hypothesis.

A more comprehensive overview of the data will now be presented through the discussion of each hypothesis in turn. The relevance and implications of the findings will then be considered in Chapter Five in relation to pertinent published literature and research.

4.3.1 Hypothesis 1

H1i There is a difference between a candidate's UCAS route of entry and their average academic grade (including placement). (p= .048)

H1ii There is a difference between a candidate's UCAS route of entry and their average academic grade (excluding placement). (p= .037)

Factor	Dependent	Degrees of Freedom (df)	F Value	Significance Level p=	Significant
Route of Entry	Average academic grade including placement	2	3.097	.048	Yes
Route of Entry	Average academic grade excluding placement	2	3.374	.037	Yes

Graph 7 Mean grade by UCAS route

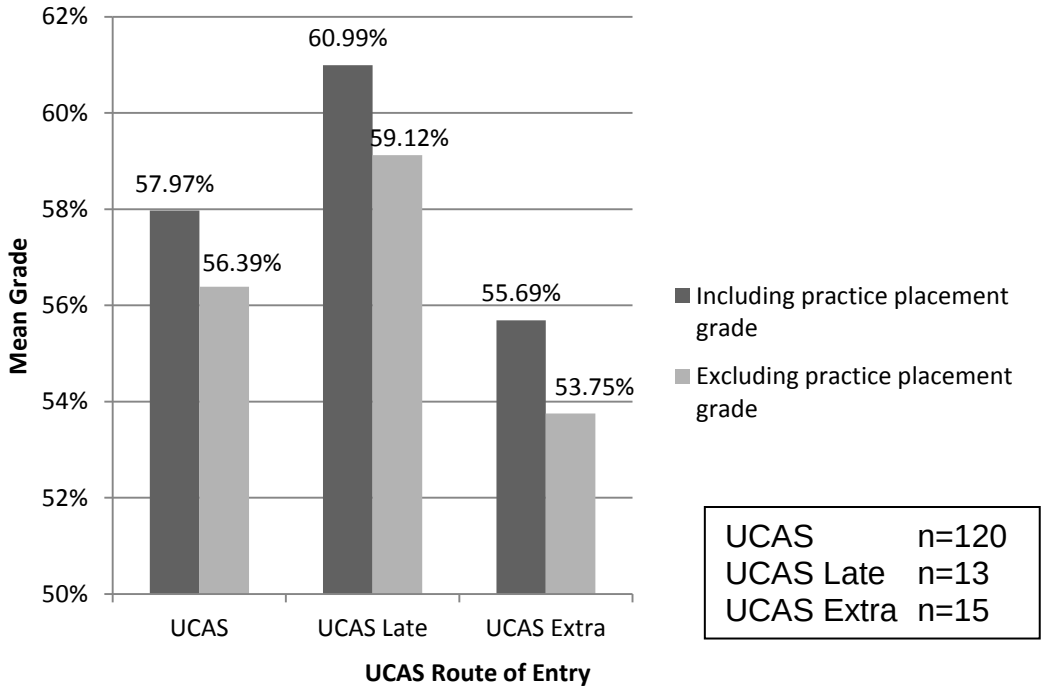


Table 12 Post hoc Tukey test

Multiple Comparisons

Dependent Variable: Average Grade (including placement)

Tukey HSD

(I) UCAS application route	(J) UCAS application route	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
UCAS	UCAS Late	-3.02300	1.64325	.160	-6.9143	.8683
	UCAS Extra	2.27407	1.54124	.306	-1.3756	5.9238
UCAS Late	UCAS	3.02300	1.64325	.160	-.8683	6.9143
	UCAS Extra	5.29707*	2.13256	**.037**	.2471	10.3470
UCAS Extra	UCAS	-2.27407	1.54124	.306	-5.9238	1.3756
	UCAS Late	-5.29707*	2.13256	**.037**	-10.3470	-.2471

*. The mean difference is significant at the 0.05 level.

Graph 7 identifies students joining the course via UCAS Extra having a lower end of Year One mean grade. This remains the case when the mean is calculated excluding the practice placement module grade, thereby considering only the academic modules. A post hoc Tukey test (Table 12) identifies that there is a significant difference between UCAS Late and UCAS Extra candidates (p= .037).

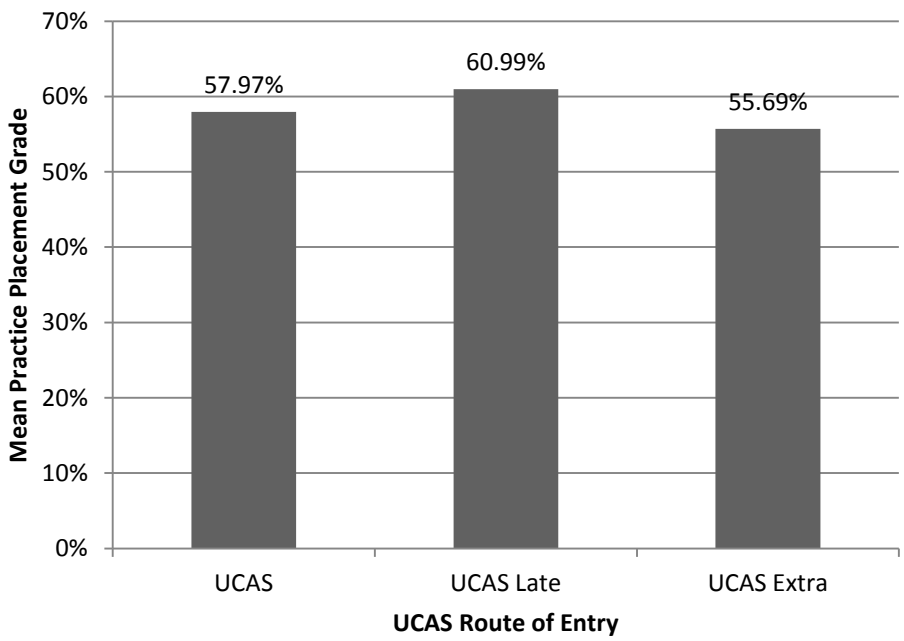
Continued…

4.3.2 Hypothesis 2

2i There is no difference between a candidate's UCAS route of entry and their practice placement grade (p= .085)

Factor	Dependent	Degrees of Freedom (df)	F Value	Significance Level p=	Significant
Route of Entry	Practice Placement Grade	2	2.504	.085	No

Graph 8 Average practice placement grade by UCAS route



Graph 8 shows the mean practice placement grade by UCAS Route of Entry. It was found, following completion of a one-way ANOVA, that the student's UCAS Route of Entry has no effect on practice placement grade (p=0.85).

4.3.3 Hypothesis 3

3 There is no difference between a candidate's UCAS route of entry and the number of modules passed on first attempt. (p= .102)

Factor	**Dependent**	Degrees of Freedom (df)	F Value	Significance Level p=	Significant
Route of Entry	Number of modules passed on first attempt	2	2.317	.102	No

No significant difference was identified between this factor and dependent. Due to the smaller numbers of student's entering the programme via the UCAS Late (n= 13) and UCAS Extra (n= 15) routes, the proportion who then did not pass a module on the first attempt (UCAS Late n= 5, UCAS Extra n= 5) is very small to allow comparison, however is a high percentage within that route.

4.3.4 Hypothesis 4

4 There is no difference between a candidate's UCAS route of entry and the number of modules carried into Year Two studies (p= .687)

Factor	**Dependent**	Degrees of Freedom (df)	F Value	Significance Level p=	Significant
Route of Entry	Number of Modules carried into Year Two studies	2	0.377	.687	No

Continued…

Table 13 Number of modules carried into Year 2 by UCAS route of entry

	Number of Modules Carried					
	No modules		**1 module**		**2 modules**	
		%	n=1	%	n=2	%
UCAS	105	88%	15	13%	0	0%
UCAS Late	13	81%	1	6%	2	13%
UCAS Extra	13	87%	2	13%	0	0%

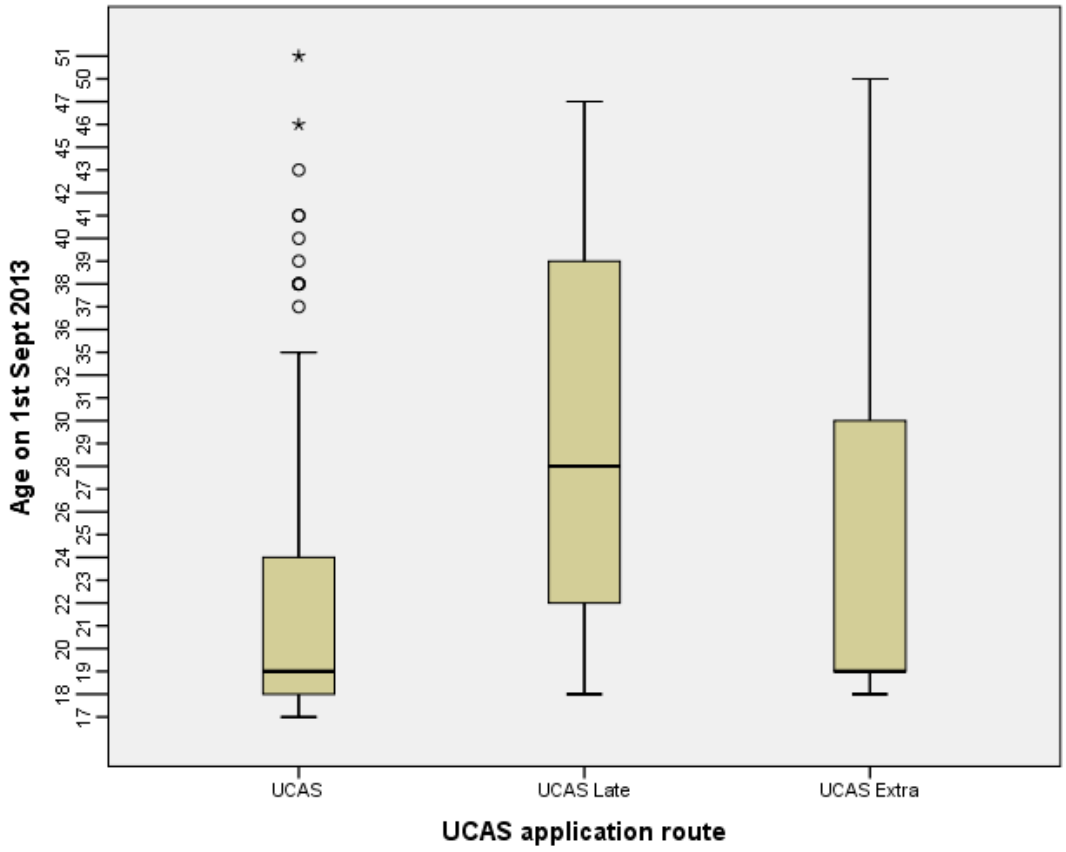
No significant difference between this factor and dependent was identified. Similarly to Hypothesis 3, there are a small number of students within the UCAS Late and UCAS Extra groups who carried a module into the second year, however this is a similar percentage of students for those entering via the on-time UCAS route.

4.3.5 Hypothesis 5

5 There is a difference between a candidate's UCAS route of entry and age of the candidate. (p= .007)

Factor	**Dependent**	Degrees of Freedom (df)	F Value	Significance Level p=	Significant
Route of Entry	Age of Candidate	2	5.190	.007	Yes

Graph 9 **Boxplot showing UCAS route of entry and age of students on 1st September 2013**



UCAS	n=120
UCAS Late	n=13
UCAS Extra	n=15

Graph 10 **Pie Charts representing UCAS route of entry and groups age of students**

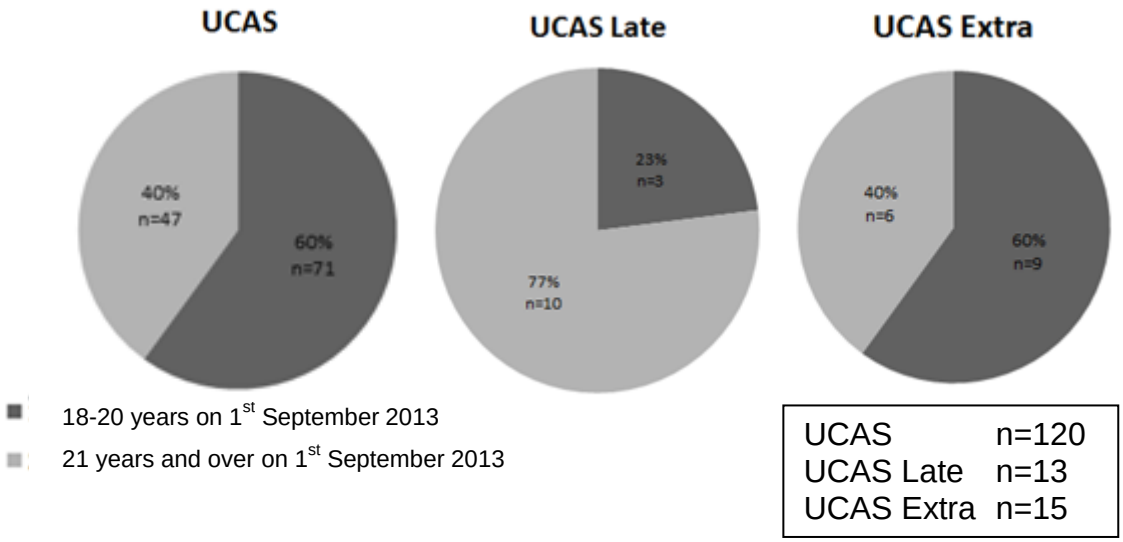


Table 14 **Post hoc Tukey**

Multiple Comparisons

Dependent Variable: Age on 1st Sept 2013

Tukey HSD

(I) UCAS application route	(J) UCAS application route	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
UCAS	UCAS Late	-7.146*	2.267	**.006**	-12.51	-1.78
	UCAS Extra	-2.100	2.126	.586	-7.13	2.93
UCAS Late	**UCAS**	7.146*	2.267	**.006**	1.78	12.51
	UCAS Extra	5.046	2.941	.203	-1.92	12.01
UCAS Extra	UCAS	2.100	2.126	.586	-2.93	7.13
	UCAS Late	-5.046	2.941	.203	-12.01	1.92

*. The mean difference is significant at the 0.05 level.

Graph 9 shows the student's age on entry to the programme categorised by UCAS Route of Entry. The UCAS Extra route has the widest range of ages and the lowest median age. The on-time UCAS route has the smallest distribution of ages and lowest interquartile range.

When the student's ages are considered in terms of 18 to 20 years and 21 years and over, the pie charts in Graph 10 allow a clear visual representation of the distribution of ages within each UCAS route. The majority (77%, n=10) of students entering the programme via UCAS Late are mature (21 years or over) at point of entry. The on-time UCAS and UCAS Extra students have an identical proportion of mature students (40%).

4.3.6 Hypothesis 6

6i There is a significant difference between a candidate meeting the course academic entry requirements and their average academic grade (including placement grade). (p= .010)

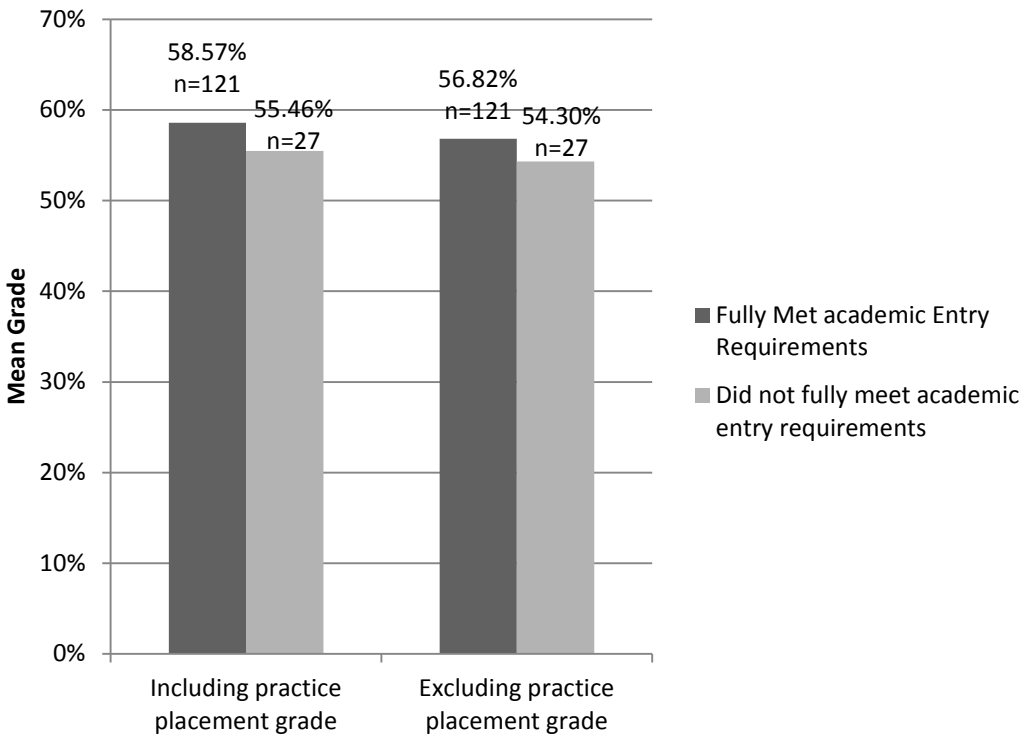
6ii There is a significant difference between a candidate meeting the course academic entry requirements and their average academic grade (excluding placement grade).(p= .033)

	Factor	**Dependent**	Degrees of Freedom (df)	Significance Level p=	Significant
6i	Meeting course entry requirements	Average academic grade including placement	2	.010	Yes
6ii	Meeting course entry requirements	Average academic grade excluding placement	2	.033	Yes

An Independent Samples t-test was used to determine the need to accept the null hypothesis.

Continued…

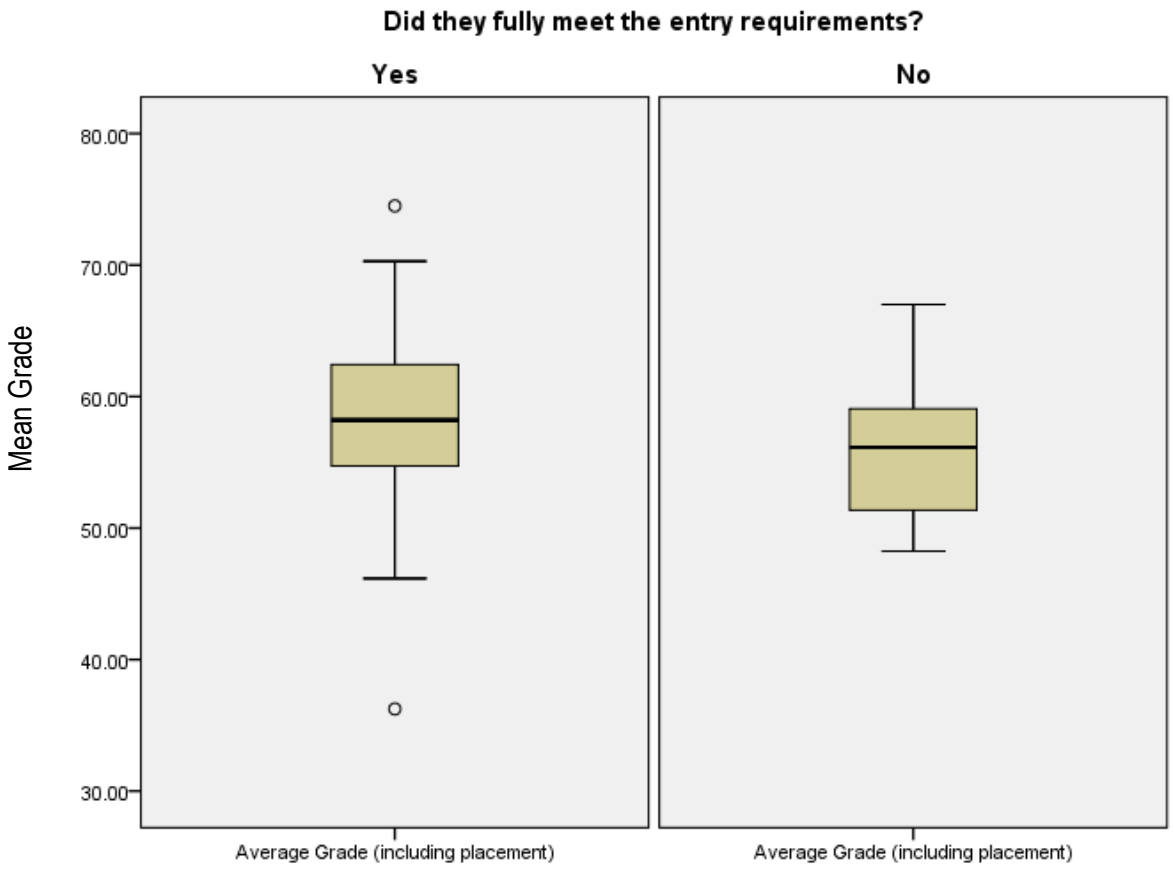
Graph 11 Mean grade by meeting academic conditions of offer



While the results are statistically significant, it can be seen in Graph 11 that the mean grade of the two groups falls within the same banding (i.e. 50-59%). This finding is discussed further within Chapter 5 (5.3) considering this within the context of the programme of studies..

The box plot (Graph 12, below) shows the distribution of grades for students categorised by whether they fully met the entry requirements or not. It can be seen that there is a wider distribution of grades for the group who did meet the entry requirements.

Graph 12 Box plot of mean grade by meeting academic conditions of offer



Continued…

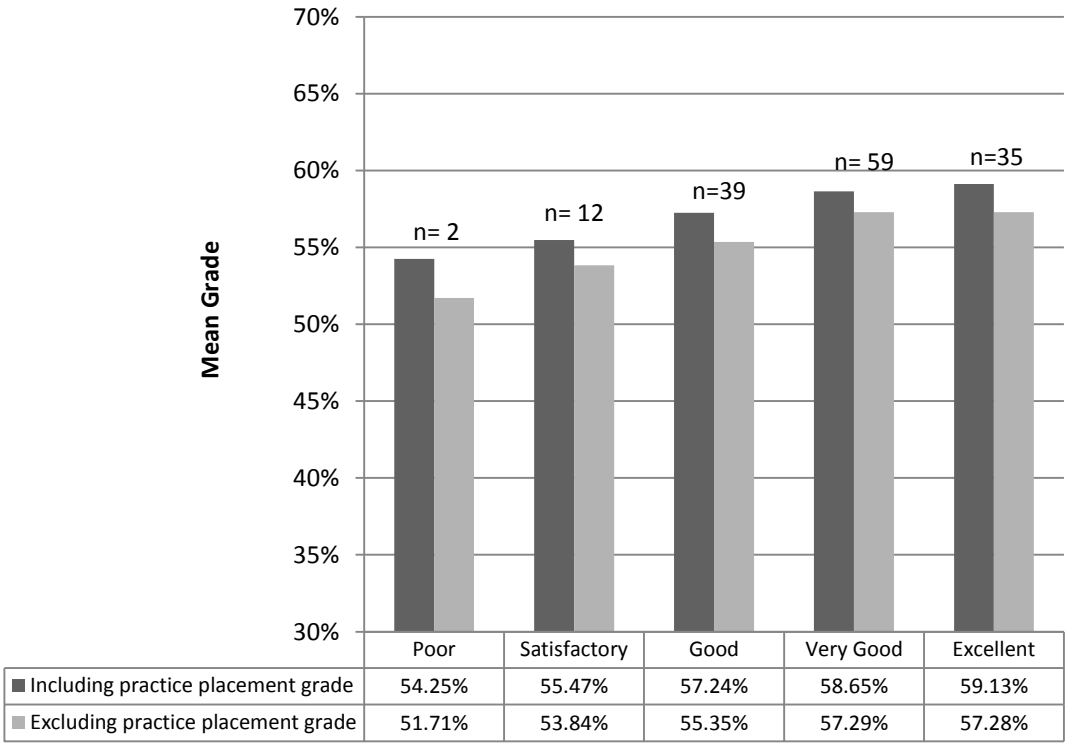
4.3.7 Hypothesis 7

7i There is no difference between the score for a candidate's personal statement and their average academic grade (including placement grade) (p= .191)

7ii There is no difference between the score for a candidate's personal statement and their average academic grade (excluding placement grade) (p= .096)

	Factor	**Dependent**	Degrees of Freedom (df)	F Value	Significance Level p=	Significant
7i	Score for Personal Statement	Average academic grade including placement	4	1.846	.191	No
7ii	Score for Personal Statement	Average academic grade excluding placement	4	2.026	.096	No

Graph 13 Mean academic grade by personal statement grading



Graph 13 identifies a steady increase in average academic grade as the grade awarded for the personal statement is increased, however this difference is not statistically significant (p= .191, p= .096). The mean grades remain within the same banding (50-59%) for each of the grades awarded for the personal statement.

4.3.8 Hypothesis 8

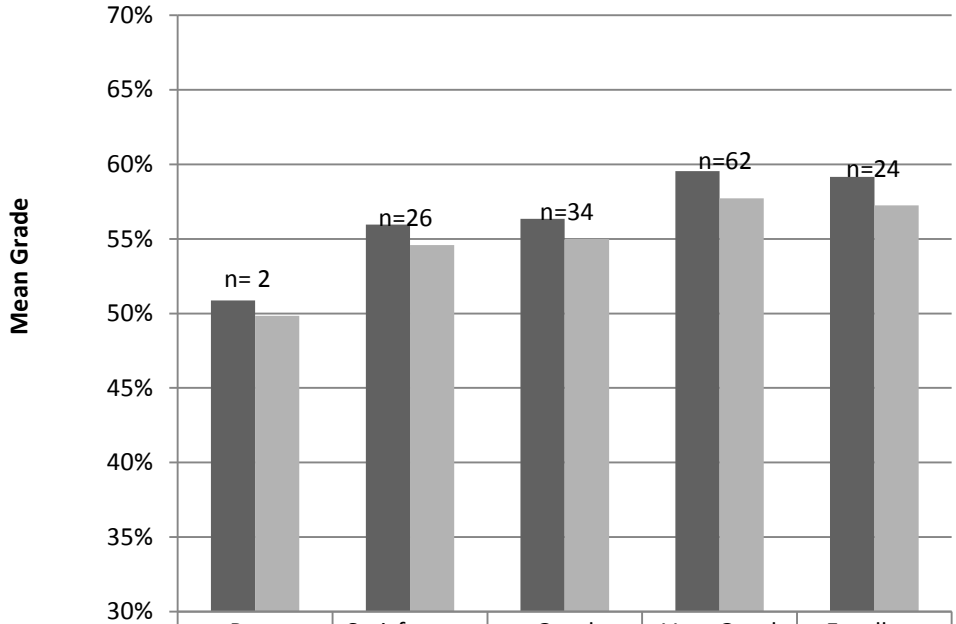
The remaining hypotheses, 8-12, explore the different aspects of the interview process. A detailed breakdown of the interview processes can be found in Appendix 2.

8i There is a difference between the score for the group discussion of an occupational therapy related media clip within the interview and average academic grade (including placement grade) (p= .004)

8ii There is a difference between the score for the group discussion of an occupational therapy related media clip within the interview and average academic grade (excluding placement grade) (p= .017)

	Factor	**Dependent**	Degrees of Freedom (df)	F Value	Significance Level p=	Significant
8i	Score for group discussion of media clip	Average academic grade including placement	4	4.020	.004	Yes
8ii	Score for group discussion of media clip	Average academic grade excluding placement	4	3.124	.017	Yes

Graph 14 Mean academic grade by group Task 1 grading (8i)



	Poor	Satisfactory	Good	Very Good	Excellent
Including practice placement grade	50.86%	55.96%	56.35%	59.55%	59.15%
Excluding practice placement grade	49.83%	54.59%	55.00%	57.72%	57.24%

Graph 14 allows consideration of the mean academic grade in relation to the grade awarded at interview for participation in Group Task 1. This distribution is statistically significant and the Post Hoc Tukey test for Hypothesis 8i shows this significance to be between the Satisfactory and Very Good grades (p= .045). While the difference, shown in Graph 14, is not as linear as that for Hypothesis 7 (Graph 13), there is a greater range of mean grades.

Continued…

Table 15 Post hoc Tukey (8i)

Multiple Comparisons

Dependent Variable: Average Grade (including placement)

Tukey HSD

(I) Group Task 1 Grading	(J) Group Task 1 Grading	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Poor	Satisfactory	-5.10101	4.02604	.712	-16.2245	6.0225
	Good	-5.49706	3.99206	.643	-16.5267	5.5326
	Very Good	-8.69624	3.94167	.183	-19.5866	2.1942
	Excellent	-8.29563	4.03800	.246	-19.4522	2.8609
Satisfactory	Poor	5.10101	4.02604	.712	-6.0225	16.2245
	Good	-.39605	1.42939	.999	-4.3453	3.5532
	Very Good	-3.59523*	1.28192	.045	-7.1370	-.0534
	Excellent	-3.19463	1.55308	.245	-7.4856	1.0964
Good	Poor	5.49706	3.99206	.643	-5.5326	16.5267
	Satisfactory	.39605	1.42939	.999	-3.5532	4.3453
	Very Good	-3.19918	1.17085	.054	-6.4341	.0358
	Excellent	-2.79858	1.46275	.315	-6.8400	1.2428
Very Good	Poor	8.69624	3.94167	.183	-2.1942	19.5866
	Satisfactory	3.59523*	1.28192	.045	.0534	7.1370
	Good	3.19918	1.17085	.054	-.0358	6.4341
	Excellent	.40060	1.31901	.998	-3.2437	4.0449
Excellent	Poor	8.29563	4.03800	.246	-2.8609	19.4522
	Satisfactory	3.19463	1.55308	.245	-1.0964	7.4856
	Good	2.79858	1.46275	.315	-1.2428	6.8400
	Very Good	-.40060	1.31901	.998	-4.0449	3.2437

*. The mean difference is significant at the 0.05 level.

Continued…

Table 16 Post hoc Tukey (8ii)

Multiple Comparisons

Dependent Variable: Average Grade (excluding placement)

Tukey HSD

(I) Group Task 1 Grading	(J) Group Task 1 Grading	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Poor	Satisfactory	-4.75609	3.96008	.751	-15.6974	6.1852
	Good	-5.16176	3.92666	.683	-16.0107	5.6872
	Very Good	-7.89059	3.87709	.255	-18.6026	2.8214
	Excellent	-7.40625	3.97185	.341	-18.3801	3.5676
Satisfactory	Poor	4.75609	3.96008	.751	-6.1852	15.6974
	Good	-.40567	1.40597	.998	-4.2902	3.4789
	Very Good	-3.13450	1.26092	.100	-6.6183	.3493
	Excellent	-2.65016	1.52764	.416	-6.8709	1.5705
Good	Poor	5.16176	3.92666	.683	-5.6872	16.0107
	Satisfactory	.40567	1.40597	.998	-3.4789	4.2902
	Very Good	-2.72883	1.15167	.130	-5.9108	.4531
	Excellent	-2.24449	1.43879	.525	-6.2197	1.7307
Very Good	Poor	7.89059	3.87709	.255	-2.8214	18.6026
	Satisfactory	3.13450	1.26092	.100	-.3493	6.6183
	Good	2.72883	1.15167	.130	-.4531	5.9108
	Excellent	.48434	1.29740	.996	-3.1002	4.0689
Excellent	Poor	7.40625	3.97185	.341	-3.5676	18.3801
	Satisfactory	2.65016	1.52764	.416	-1.5705	6.8709
	Good	2.24449	1.43879	.525	-1.7307	6.2197
	Very Good	-.48434	1.29740	.996	-4.0689	3.1002

Continued…

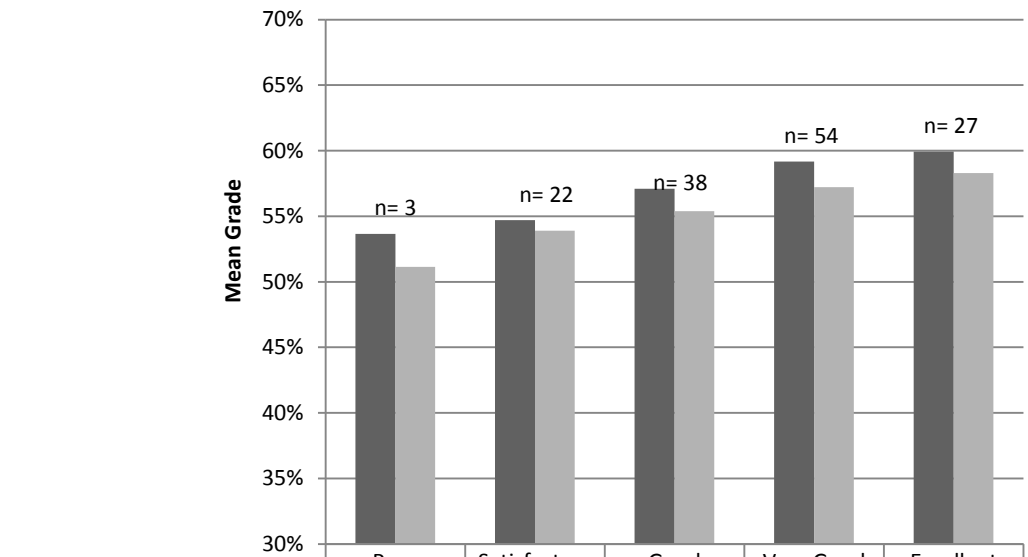
4.3.9 Hypothesis 9

9i There is a difference between the score for the practical group task within the interview and average academic grade (including placement grade) (p= .003)

9ii There is a difference between the score for the practical group task within the interview and average academic grade (excluding placement grade) (p= .011)

	Factor	**Dependent**	Degrees of Freedom (df)	F Value	Significance Level p=	Significant
9i	Score for practical group task	Average academic grade including placement	4	4.261	.003	Yes
9ii	Score for practical group task	Average academic grade excluding placement	4	3.377	.011	Yes

Graph 15 Mean academic grade by practical group task grading



	Poor	Satisfactory	Good	Very Good	Excellent
Including practice placement grade	53.66%	54.70%	57.11%	59.18%	59.93%
Excluding practice placement grade	51.14%	53.91%	55.40%	57.22%	58.29%

Graph 15 highlights the statistically significant difference however the gradings do still sit within the same percentage banding (50-59%). The Post Hoc Tukey test for Hypothesis 9i (Table 17) shows the significance to be between the Satisfactory and Very Good (p= .012), and Satisfactory and Excellent (p= .009) grades.

Table 17 Post hoc Tukey (9i)

Multiple Comparisons

Dependent Variable: Average Grade (including placement)

Tukey HSD

(I) Group Task 2 Grading	(J) Group Task 2 Grading	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Poor	Satisfactory	-1.05061	3.34071	.998	-10.2840	8.1828
	Good	-3.45698	3.25522	.826	-12.4541	5.5402
	Very Good	-5.52690	3.21974	.427	-14.4260	3.3722
	Excellent	-6.28307	3.30338	.321	-15.4133	2.8472
Satisfactory	Poor	1.05061	3.34071	.998	-8.1828	10.2840
	Good	-2.40636	1.45416	.465	-6.4255	1.6128
	Very Good	-4.47628*	1.37290	**.012**	-8.2709	-.6817
	Excellent	-5.23246*	1.55900	**.009**	-9.5414	-.9235
Good	Poor	3.45698	3.25522	.826	-5.5402	12.4541
	Satisfactory	2.40636	1.45416	.465	-1.6128	6.4255
	Very Good	-2.06992	1.14933	.377	-5.2466	1.1067
	Excellent	-2.82609	1.36623	.240	-6.6022	.9500
Very Good	Poor	5.52690	3.21974	.427	-3.3722	14.4260
	Satisfactory	4.47628*	1.37290	**.012**	.6817	8.2709
	Good	2.06992	1.14933	.377	-1.1067	5.2466
	Excellent	-.75617	1.27939	.976	-4.2923	2.7800
Excellent	Poor	6.28307	3.30338	.321	-2.8472	15.4133
	Satisfactory	5.23246*	1.55900	**.009**	.9235	9.5414
	Good	2.82609	1.36623	.240	-.9500	6.6022
	Very Good	.75617	1.27939	.976	-2.7800	4.2923

*. The mean difference is significant at the 0.05 level.

Table 18 Post hoc Tukey (9ii)

Multiple Comparisons

Dependent Variable: Average Grade (excluding placement)

Tukey HSD

(I) Group Task 2 Grading	(J) Group Task 2 Grading	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Poor	Satisfactory	-2.77588	3.30140	.917	-11.9007	6.3489
	Good	-4.26243	3.21692	.676	-13.1537	4.6289
	Very Good	-6.07963	3.18185	.317	-14.8740	2.7147
	Excellent	-7.15556	3.26451	.189	-16.1784	1.8673
Satisfactory	Poor	2.77588	3.30140	.917	-6.3489	11.9007
	Good	-1.48654	1.43705	.839	-5.4584	2.4853
	Very Good	-3.30375	1.35675	.112	-7.0537	.4462
	Excellent	-4.37967*	1.54065	**.041**	-8.6379	-.1214
Good	Poor	4.26243	3.21692	.676	-4.6289	13.1537
	Satisfactory	1.48654	1.43705	.839	-2.4853	5.4584
	Very Good	-1.81720	1.13581	.500	-4.9565	1.3221
	Excellent	-2.89313	1.35015	.208	-6.6248	.8386
Very Good	Poor	6.07963	3.18185	.317	-2.7147	14.8740
	Satisfactory	3.30375	1.35675	.112	-.4462	7.0537
	Good	1.81720	1.13581	.500	-1.3221	4.9565
	Excellent	-1.07593	1.26434	.914	-4.5705	2.4186
Excellent	Poor	7.15556	3.26451	.189	-1.8673	16.1784
	Satisfactory	4.37967*	1.54065	**.041**	.1214	8.6379
	Good	2.89313	1.35015	.208	-.8386	6.6248
	Very Good	1.07593	1.26434	.914	-2.4186	4.5705

*. The mean difference is significant at the 0.05 level.

Continued…

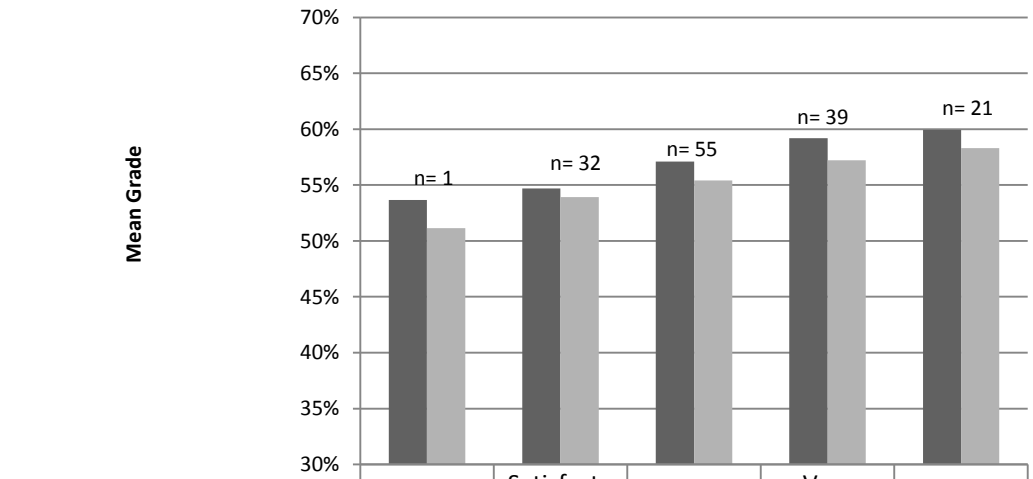
4.3.10 Hypothesis 10

10i There is no difference between the score for the reflection within the interview's written task and average academic grade (including placement grade) (p= .064)

10ii There is no difference between the score for the reflection within the interview's written task and average academic grade (excluding placement grade) (p=0.111)

	Factor (written task)	**Dependent**	Degrees of Freedom (df)	F Value	Significance Level p=	Significant ?
10i	Score for reflection component	Average academic grade including placement	4	2.274	.064	No
10ii	Score for reflection component	Average academic grade excluding placement	4	1.917	.111	No

Graph 16 Mean academic grade by reflection grading



	Poor	Satisfactory	Good	Very Good	Excellent
Including practice placement grade	53.66%	54.70%	57.11%	59.18%	59.93%
Excluding practice placement grade	51.14%	53.91%	55.40%	57.22%	58.29%

While there is no statistical difference (p= .064, p= .111) between the reflection grading and a student's mean academic grade, Graph 16 shows a linear increase in grades in line with an increase in the mark awarded for the task. Again, the gradings sit within the same percentage banding (50-59%).

4.3.11 Hypothesis 11

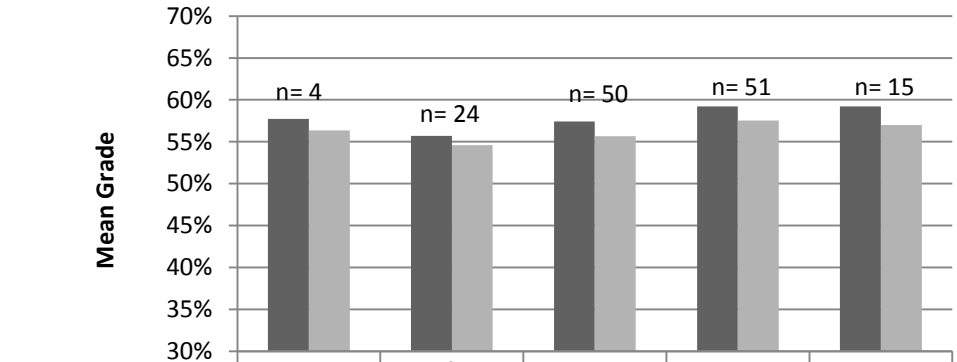
11i There is no difference between the score for the occupational therapy specific questions within the interview's written task and average academic grade (including placement grade).(p= .116)

11ii There is no difference between the score for the occupational therapy specific questions within the interview's written task and average academic grade (excluding placement grade).(p= .228)

	Factor (written task)	**Dependent**	Degrees of Freedom (df)	F Value	Significance Level p=	Significant?
11i	Score for OT specific questions	Average academic grade including placement	4	1.887	.116	No
11ii	Score for OT specific questions	Average academic grade excluding placement	4	1.427	.228	No

Continued…

Graph 17 Mean academic grade by OT questions grading



	Poor	Satisfactory	Good	Very Good	Excellent
Including practice placement grade	57.73%	55.72%	57.44%	59.21%	59.21%
Excluding practice placement grade	56.35%	54.60%	55.68%	57.52%	57.01%

Graph 17 pictorially supports the finding that there is no statistically significant difference between the grade of the occupational therapy specific question and the mean grade of the student. There is also no linear distribution of grades as there has been for previous hypotheses.

Continued…

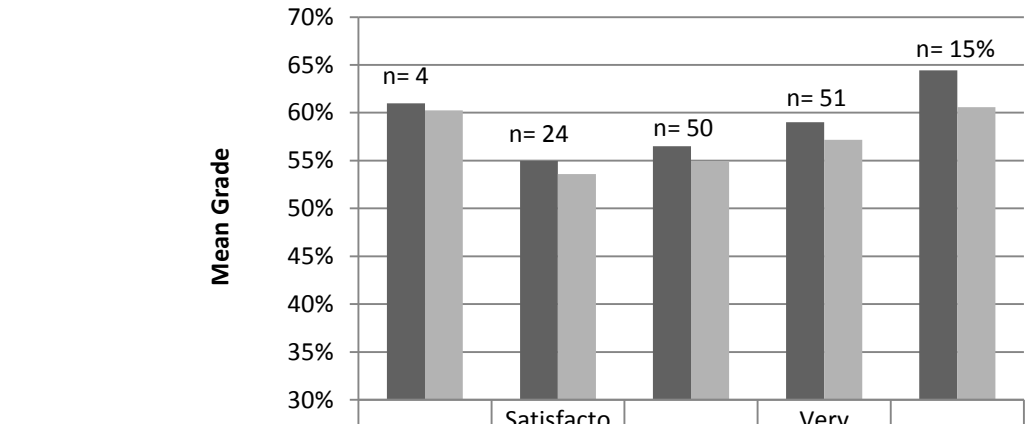
4.3.12 Hypothesis 12

12i There is a difference between the score for the writing style within the interview's written task and average academic grade (including placement grade) (p= < .01)

12ii There is a difference between the score for the writing style within the interview's written task and average academic grade (excluding placement grade) (p= < .01)

	Factor (written task)	**Dependent**	Degrees of Freedom (df)	F Value	Significance Level p=	Significant?
12i	Score for writing style	Average academic grade including placement	4	6.052	< .001	Yes
12ii	Score for writing style	Average academic grade excluding placement	4	5.789	< .001	Yes

Graph 18 Mean academic grade by score for writing style



	Poor	Satisfactory	Good	Very Good	Excellent
Including practice placement grade	60.97%	54.97%	56.52%	59.00%	64.43%
Excluding practice placement grade	60.24%	53.60%	54.98%	57.16%	60.60%

Table 19 Post hoc Tukey (12i)

Multiple Comparisons

Dependent Variable: Average Grade (including placement)

Tukey HSD

(I) Grading of Writing style	(J) Grading of Writing style	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Poor	Satisfactory	5.99864	2.67053	.169	-1.3804	13.3777
	Good	4.44986	2.51719	.396	-2.5055	11.4052
	Very Good	1.96837	2.50490	.934	-4.9530	8.8898
	Excellent	-1.46349	2.77134	.984	-9.1211	6.1941
Satisfactory	Poor	-5.99864	2.67053	.169	-13.3777	1.3804
	Good	-1.54878	1.39553	.801	-5.4048	2.3073
	Very Good	-4.03027*	1.37324	**.031**	-7.8247	-.2358
	Excellent	-7.46213*	1.81427	**.001**	-12.4752	-2.4491
Good	Poor	-4.44986	2.51719	.396	-11.4052	2.5055
	Satisfactory	1.54878	1.39553	.801	-2.3073	5.4048
	Very Good	-2.48149	1.04419	.128	-5.3667	.4038
	Excellent	-5.91335*	1.57991	**.002**	-10.2789	-1.5478
Very Good	Poor	-1.96837	2.50490	.934	-8.8898	4.9530
	Satisfactory	4.03027*	1.37324	**.031**	.2358	7.8247
	Good	2.48149	1.04419	.128	-.4038	5.3667
	Excellent	-3.43186	1.56025	.186	-7.7431	.8793
Excellent	Poor	1.46349	2.77134	.984	-6.1941	9.1211
	Satisfactory	7.46213*	1.81427	**.001**	2.4491	12.4752
	Good	5.91335*	1.57991	**.002**	1.5478	10.2789
	Very Good	3.43186	1.56025	.186	-.8793	7.7431

*. The mean difference is significant at the 0.05 level.

Continued…

Table 20 Post hoc Tukey (12ii)

Multiple Comparisons

Dependent Variable: Average Grade (excluding placement)

Tukey HSD

(I) Grading of Writing style	(J) Grading of Writing style	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Poor	Satisfactory	6.64397	2.60524	.086	-.5547	13.8426
	Good	5.25517	2.45565	.209	-1.5302	12.0405
	Very Good	3.12393	2.44366	.705	-3.6283	9.8761
	Excellent	-.38222	2.70358	1.000	-7.8526	7.0882
Satisfactory	Poor	-6.64397	2.60524	.086	-13.8426	.5547
	Good	-1.38880	1.36141	.846	-5.1506	2.3730
	Very Good	-3.52004	1.33967	.071	-7.2217	.1817
	Excellent	-7.02619*	1.76991	**.001**	-11.9167	-2.1357
Good	Poor	-5.25517	2.45565	.209	-12.0405	1.5302
	Satisfactory	1.38880	1.36141	.846	-2.3730	5.1506
	Very Good	-2.13124	1.01866	.229	-4.9459	.6835
	Excellent	-5.63739*	1.54128	**.003**	-9.8962	-1.3786
Very Good	Poor	-3.12393	2.44366	.705	-9.8761	3.6283
	Satisfactory	3.52004	1.33967	.071	-.1817	7.2217
	Good	2.13124	1.01866	.229	-.6835	4.9459
	Excellent	-3.50615	1.52211	.150	-7.7119	.6996
Excellent	Poor	.38222	2.70358	1.000	-7.0882	7.8526
	Satisfactory	7.02619*	1.76991	.001	2.1357	11.9167
	Good	5.63739*	1.54128	.003	1.3786	9.8962
	Very Good	3.50615	1.52211	.150	-.6996	7.7119

*. The mean difference is significant at the 0.05 level.

Graph 17 pictorially shows a range of almost 10% (one percentage banding) between those scoring Satisfactory and Excellent when considering the style and presentation of a candidate's written piece. The 'Poor' category (n=5) is the exception to this finding. All five of the students awarded 'Poor' applied via the on-time UCAS route.

The Post Hoc Tukey test for Hypothesis 12i (Table 19) shows the significance to be between the Satisfactory and Excellent (p= .001), and Good and Excellent (p= .002) grades. For Hypothesis 12ii the significance is found between Good and Excellent (p= .003).

4.4 Conclusion

Analysis of the data has provided an valuable insight into the profile of the sample cohort. Themes and patterns are emerging both in relation to the demographic profile of students and their interview performance in relation to their subsequent academic performance within Level 1 studies. Post Hoc Tukey tests allow a clearer understanding of the point at which these relationships exist. Pie charts and bar charts provide a visual representation of the data. The findings identified within this Data Analysis chapter shall now be explored further, and in relation to the literature, within Chapter Five, Discussion of Findings, offering new knowledge in this field.

Chapter Five

5 Discussion of Findings

5.1 Introduction to chapter

From the analysis of the data there have been some illuminating findings which have the potential to influence future admission cycles within the surveyed university and more widely in other UK occupational therapy and healthcare programmes. There are four key findings of note from this research which shall be discussed in turn in relation to pertinent literature and consideration of the implications of the future use of this new knowledge.

Knapp (2014: 187) encourages the researcher to 'avoid jumping to conclusions' regarding causation. Professional judgement and a common sense approach therefore has been applied in the interpretation of the results and needs to continue to be applied to any subsequent actions.

To provide context to this discussion the original research question and aims are now presented:

Research Question

> 'What are the assessed factors within the admissions process for a BSc (Hons) Occupational Therapy pre-registration course, which predict the outcome of a student's first year of studies?'

Aims

- To examine whether there is a relationship between UCAS mode of application and Level One overall average academic grade *(Hypotheses 1, 3 & 4)*
- To examine whether there is a relationship between UCAS mode of application and Level One practice placement grades *(Hypotheses 2 & 4)*
- To identify if there is a relationship between UCAS mode of application and age of candidate *(Hypothesis 5)*
- To compare specific assessed components of the interview process with academic achievement in Level One with the purpose of identifying any significant relationships *(Hypotheses 7-12)*

5.2 Finding 1: There is a significant difference in the academic performance of students dependent on their UCAS route of application.

Consideration of the UCAS route of application appeared to be a previously un-researched area in relation to the occupational therapy admission process. From the data analysed it was established that there is a significant difference in the academic performance of students dependent on their UCAS route of application. Following application of the one-way ANOVA test a post hoc Tukey test found this difference to be significant (p= .037) between the UCAS Extra and UCAS Late students when considering their average academic grade (including placement grade) (hypothesis 1). There was no significant difference (p= .085) between UCAS route of application and practice placement grade

(hypothesis 2). Additionally no statistically significant difference was identified between a student's UCAS route of application and the number of modules passed on first attempt (hypothesis 3) or number of modules carried into Year Two of the programme of studies (hypothesis 4). This shows that while students applying via UCAS Late achieved the highest academic grading over all, the student profiles for students from all routes of study progressed through their first year of studies in a similar pattern. There was no identification of differences in the number of modules passed or carried into the following year between routes.

There is no literature to date which has explored this aspect (UCAS application route) of the admissions cycle and so the results cannot be compared directly with other findings. However, Salamonson et al. (2014: 130), in relation to whether nursing as a prospective student's first choice of career predicted completion of the programme, found that students who chose nursing as their first choice were likely to still be practising nursing six years later. While this research focussed on career choice rather than university choice and timing of application, Salamonson et al's findings are relevant in relation to UCAS Extra candidates analysed within this study. Many applicants applying by this UCAS route may have been forced to choose an alternative career through rejection of their application to their initial preferred choice of course.

A UCAS 'End of Cycle Report' (2014: 40) identified that 1.48% of students placed in higher education through UCAS had applied via UCAS Extra. The reason for the candidates in this study to have applied via UCAS Extra are not explored within the scope of this research study, however the nature of these

applications implies that potentially the decision to study occupational therapy or to study at the university may not have been the candidate's first, or indeed fifth choice. This leads to the question as to why these applicants have not been successful in their other applications and if this suggests UCAS Extra applicants are a lower calibre of student?

Analysis of the data identifies that there is no statistical difference between UCAS Extra candidates and the on-time UCAS route or UCAS Late route in terms of mean grade, however the UCAS Extra group of students does have a lower mean than the other routes. Further exploration is now recommended through deeper analysis of subsequent cohorts to explore the overall interview performance of UCAS Extra students. Inclusion of subsequent cohorts would allow a larger number of applicants to be considered and further analysis would allow combining of these results to identify any patterns. At present UCAS Extra and UCAS Late candidates form 10.14% (n=15) and 8.8% (n=13) respectively of the surveyed cohort. Validity would be further ensured through a multiple cohort study.

It cannot be assumed that UCAS Extra candidates are of a lower calibre than students applying via the other routes and therefore use of this UCAS route should continue to be a valuable source of applications for the researched institution and programme.

Continued…

5.3 Finding 2: There is a significant difference in the academic performance of students dependant on whether they fully met their academic entry requirements

Consideration was given to whether there is an impact on the students first year average grades according to whether they fully met the academic entry requirements set as part of their conditional offer. It was found to be statistically significant (p= .010) and therefore can be determined that there is a relationship between this factor and dependant.

While the results are statistically significant, the mean grade of the two groups (did meet, and did not fully meet academic entry requirements) falls within the same banding (i.e. 50-59%). The boxplot shown in Graph 12 identifies that those students who did fully meet the academic entry requirements have a wider spread of grades. Therefore, although the results are statistically significant, it is not felt that this factor alone can influence future decision making due to there being some overlaps in the grades of the two groups.

It was not an original hypothesis of this study to explore the relationship between UCAS route of study, academic grade and if the candidates fully met the entry requirements, however consideration of the outcomes determined from other hypotheses led to deliberation of this combination of factors.

When analysing this element of the admissions process categorised by UCAS route of entry, 27 students did not meet the academic entry requirements, but were accepted onto the programme and met the inclusion criteria for this study. To clarify, a student is identified as not meeting the academic entry

requirements if they did not achieve fully the academic condition of their offer (e.g. a set number of credits for an Access programme, or grade profile for A-level studies). At the academic admission tutor's discretion these students may still have their place confirmed for entry onto the programme. All UCAS Late (n= 13), 73.33% (n= 11) of UCAS Extra and 86.67% (n= 16) of on-time UCAS candidates met the entry requirements (as shown in Appendix 12) .

Given the higher proportion of UCAS Extra students who did not fully meet the entry requirements (n=4, 26.67%) further consideration was given to their overall interview performance. It was found that only one candidate was awarded a grade higher than 'Good' in more than two of the assessed categories. Three of the four candidates did not have work experience. The combination of these factors would suggest that they are not strong candidates both academically and in their approach to preparing for the programme of studies. Careful consideration should be given in the future to candidates with the following profile: applied via UCAS Extra; did not fully meet academic entry requirements; and had lower scores in their overall interview performance. However it should be noted that these students have completed their first year of studies and been able to progress into the second year of studies. For this reason it would be valuable to follow this cohort through to the completion of their studies before a conclusion on which subsequent decisions are made is drawn. Additionally, a comparison alongside those who did not complete the first year of studies would also be advantageous. Data allowing comparison of successful versus unsuccessful students is lacking from the majority of studies and so consideration is always given to levels of success. Exploration of data

of those who did not progress would allow a deeper understanding of the profile of an entire cohort.

Albeit at Masters level, the findings of this research project support the work of Lysaght, Donnelly and Villieneuve (2009: 42) who found that pre-registration students with a higher Grade Point Average (GPA) achieved a higher grade within their occupational therapy studies. Howard and Watson's work (2000: 329) found that students with lower A-Level grades still achieved high degree scores and so the influence of teaching and learning over the duration of the programme, while hard to quantify, cannot be ignored. Donoghue et al. (2002 61) also recognise that the effect of the academic staff is unknown. The impact of teaching and learning for the cohort studied may in part, explain the findings of hypotheses 3 and 4 in relation to modules carried forward and the number of modules passed on first attempt.

These emerging findings regarding a candidate's previous academic achievement require further exploration. It is recommended that identification of a candidate's failure to fully meet the academic entry requirements (to the level outlined in their initial offer) is an alert that they may not achieve as highly in their academic studies. Therefore close consideration should be given to the other factors assessed through the interview process. Additionally, if a candidate is accepted onto the programme, they may benefit from early signposting to further academic support to assist in developing these skills as they adjust to a higher level of study.

5.4 Finding 3: There is a significant difference in the age range of the candidates dependent on their UCAS route of application

The age distribution of the researched cohort evidences a younger population (Under 21 years = 51.1%) in comparison to COT (2014b: 9) data (Under 21 years = 30.0%).

It was found that there is a statistical difference between a candidate's UCAS route of entry and the age of the candidate. A post hoc Tukey test shows the difference to be significant between on-time UCAS and UCAS Late candidates (p= .006). UCAS Late students have a wider distribution of ages and a higher mean age of 29.85 years in comparison to 22.7 years for on-time UCAS students.

In order to ensure diversity in respect to the age profile of the student population, it is important to consider the continuation of accepting UCAS Late applications for the programme. Candidates may not have recently been in mainstream education and therefore not have an awareness of the UCAS cycle and deadlines. Given that UCAS Late and UCAS Extra candidates are applying at the same time within the admissions cycle, it is important to ensure academic admissions tutors are cognisant of the differences in profiles for the two streams of applicants both in terms of their age and academic ability on completion of Level One studies.

Shanahan's work (2004: 439) found that the level of previous academic studies was a determinant of success rather than the age of the student. It was not an

objective of this study to explore qualifications specifically, but the data did show that on-time UCAS and UCAS Extra students, who scored the lower mean academic averages, were predominately students with A-Levels as their highest academic qualification, whereas the majority of UCAS Late candidates hold a undergraduate degree, a higher level of qualification. This shows that UCAS Late students have a successful history of studying at Level 4 (undergraduate). Please refer to Appendix 7 for breakdown of qualifications by UCAS route. This suggests similarities to Shanahan's findings in terms of the level of study being a key indicator of success rather than the age of the candidate although further analysis is required to draw a firm conclusion in relation to this.

5.5 Finding 4 - There is a correlation between the grading of three components of the interview: discussion of media clip; practical group task and writing style, and academic performance

The interview has several components which are assessed by a team of occupational therapy lecturers and practitioners (as outlined in Chapter Three, Methodology). Of these, three components were found to have a statistically significant relationship with academic performance. These were the discussion of a media clip ($p = .004$), practical group task ($p = .003$) and the writing style of the candidate ($p = < .001$). It was found that the candidates who scored most highly in any of these components of the interview achieved a higher mean academic grade for Year One studies.

In relation to this finding Lyons et al's (2006: 284) study found that occupational therapy practitioners identified 'verbal communication skills' and 'problem solving skills' as the most important attributes for professional practice and should be demonstrated by potential occupational therapists. Both of these skills are assessed within the discussion and practical group tasks completed by candidates. The demonstration of these attributes being present in the candidates may show they are a higher calibre student who is already demonstrating some of the skills which are assessed in the first year of studies or a student with a greater potential than those who achieve a lower score. Likewise, Posthuma and Sommerfreund's (1985: 445) work recommended that interview processes should focus specifically on problem-solving as one of the assessed attributes. They found this to be particularly important in the recruitment of students currently undertaking high school studies (i.e. those joining aged 18/19 years.). This relationship continues nearly 30 years later within the findings of this study.

As acknowledged by Callwood, Allan and Courtney (2012: 836) and Lyons et al. (2006: 290) interviewing is a time-consuming process, but the results of this piece of research would indicate that it is a worthy undertaking if grading of the tasks completed by candidates is shown to be linked with subsequent academic achievement.

The relationship between a candidate's academic writing style and academic grade provided the most statistically significant results ($p = < .001$) of all hypotheses. The four candidates awarded 'poor' for this component of the interview process were the anomaly to this rule. However there was an

increase in average grade in excess of one banding for those scoring ‘satisfactory’ to ‘excellent’.

These findings support the logical assumption that a good writing style demonstrated during the written element of the interview process would indicate a higher quality of academic work within the modules requiring written pieces within their assessment. Further exploration of the content of this written work as opposed to the quantitative grade awarded for it, may allow comparisons to Sadler’s (2003: 626) work which found that students who could internalise the role of a nurse within their admissions written assessment were more likely to complete the programme. It is identified by Health Education England (2014:5) that structured interviews with a panel of interviewers as an element of Value Based Recruitment achieves the highest levels of validity. However, this assesses a candidate’s values and attributes and therefore consideration still needs to be given to their academic potential and ability to demonstrate these values in an array of diverse assessments.

The results of this research evidences a wider range of grades for the interview performance component than for candidates meeting the entry requirements. This indicates the interview components provide richer knowledge to inform the potential future academic outcomes of the candidate.

Similar to Lysaght el al’s work (2009:44), a statistically significant relationship between the score for a candidate’s personal statement and their academic average grade was not found. However given the relationship established between writing style and academic grade, the approach to the grading of this

should be explored and separate marks for content and style awarded for future cycles.

Interestingly, no significant relationship (p= .064) was found between a candidate's academic grade and the score awarded to the reflection element of the written task. This shows that reflection could be a learnt skill. Of the seven modules which are studied by students in the first year of studies, two have reflection as a learning outcome for the module and five have a reflective element to the module assessment. Therefore reflection is a skill which all successful students must have demonstrated within their first year of studies. The prevalence of reflection within the academic assessments was the basis of the rationale for an assessment of this nature within the overall interview process. This must now be reviewed to determine its place within the recruitment process.

Chapter Six

6 Conclusions

6.1 Introduction to Chapter

This research study is grounded in the question asked by academic admissions tutors: What is the evidence base for the overall student selection approach employed by this programme of studies?

This led to the development of the research question: What are the assessed factors within the admissions process for a BSc (Hons) Occupational Therapy (OT) pre-registration course, which predict the outcome of a student's studies?

The study explored a cohort of students (n=148) after one year of academic studies and the research has achieved its aims and discovered the following in relation to the objectives set: There are four strong predictors of successful first year studies and four elements which do not act as a predictor.

Strong predictors of success

- A candidate's mode of application has a statistically significant relationship with their average academic grades on completion of Level One studies.
- There is a statistically significant positive relationship between a candidate's performance in both group tasks within the overall interview process and Level One academic achievement.

- There is a significant difference in the academic performance of students dependant on whether they fully met their academic entry requirements or not.
- There is a statistically significant positive relationship between a candidate's performance in the written task within the overall interview process and Level One academic achievement.

Assessed factors which do not predict success

- A candidate's reflective skills (assessed in the written task) do not correlate with average academic grade demonstrating reflection is a learnt skill.
- There is no link between a candidate having occupational therapy work experience and average academic grade.
- There is no statistically significant relationship between Level One practice placement grades and mode of application.
- There is no statistically significant relationship between the quality of a candidate's Personal Statement and average academic grade.

Schwartz's drive for a fair and equitable admissions process continues and this research adds to the body of knowledge which Schwartz identifies that admissions policies and procedures should be informed and guided by (2004:8). As recommended by Schwartz (2004:8) this research forms part of the monitoring and evaluations of the link between admission policies and undergraduate performance.

6.2 Limitations

It is important to be reflective and open about this study's limitations in order for the reader to draw conclusions about the potential impact these have had on the research findings and recommendations.

The study has reviewed data from one cohort of occupational therapy students from one university. At this point in time, this was the most practicable research strategy and allows a timely analysis and dissemination of the data to inform ongoing enhancements to processes to meet education commissioners standards and university needs. This study forms the basis of a structured approach to informing the ongoing enhancements to the selection process for occupational therapy students. A longitudinal study exploring the cohort across the duration of their studies would increase the body of knowledge and add to the validity of the findings.

There are a variety of subjective factors, such as the personal situation of the student, which may impact on a student's performance throughout or on occasion across the duration of their studies and the timeframe over which the data have been collected. These cannot be identified or explored within the methods employed within this research and an conscious decision was taken to undertake this study utilising quantitative methods. Further research adopting a mixed methods approach which also allows consideration of qualitative variables would be valuable in a future study.

This research has reviewed data from students who have completed one academic year of studies and progressed into Year Two, and therefore by

definition are successful. This inclusion of successful students only is a similar strategy implemented by all of the studies discussed within the literature review. Data regarding those who did not progress has not been reviewed. It is unlikely that all students withdrew due to academic failure and anecdotal evidence suggests reasons such as a change in health or personal circumstances are more common reasons for attrition in the higher education institution within this study. To explore these data raises further ethical considerations, but future research may benefit from exploration of this group of students alongside those who have completed their studies.

6.3 Dissemination

It is proposed that findings from this research are disseminated nationally and internationally. This will be achieved through publication in the professional peer reviewed journal, British Journal of Occupational Therapy, and a paper presentation at the professional body's annual conference. Further afield the European Network of Occupational Therapy in Higher (ENOTHE) annual conference offers an opportunity for dissemination to occupational therapy educators and practitioners. Please refer to Appendices 13 and 14.

While focussing on occupational therapy undergraduate studies, the findings of this research also have particular relevance to other healthcare professions. This is due to the similarities in attributes that are assessed within the overall interview process. Therefore dissemination at a local level within the researcher's university to academic admissions tutors within other healthcare courses is appropriate. This will be achieved via faculty conferences and

departmental meetings. Please refer to Appendix 13 for poster presented at the faculty conference with in the researcher's university.

The findings are also relevant to other professional courses and so consideration shall be given to broader dissemination within the researcher's Higher Education Institution and the wider community of practice, for example teaching.

As a NHS funded programme, it will be valuable to share the findings of the research with relevant funding bodies. Demonstrating an evidence base for the recruitment strategies employed will further develop confidence in the selection processes of appropriate funded students.

6.4 Further research

The suggestion of extending the study to become a longitudinal study has been proposed within the limitations (6.2). In addition examination of subsequent cohorts of students would allow further exploration with a larger population of the progression of students according to UCAS application route.

The commencement of this study pre-dates the Department of Health (2014) mandate for Values Based Recruitment (VBR). However the overall interview strategies employed, and subsequently researched, show the forward-thinking nature of the admissions team. Values are assessed within both the practical and written tasks. The findings of this study indicate the written work and practical group interview tasks within the selection process map to the requirements of assessed values in Values Based Recruitment (HEE 2014: 5)

and therefore this needs further consideration in line with the government's continued drive for structured interviews.

Areas identified for future research on completion of the project, may benefit from a mixed methods approach such as that utilised by Taylor, Macduff and Stephen (2014: 1157). Student perspectives could therefore be considered through data collection tools including interviews which would allow analysis of those students who are not 'successful'.

6.5 Recommendations for practice and final conclusions

Evidence emerging from the completion of this study can be utilised in future admissions cycles locally and consideration given to the findings nationally within occupational therapy education and more widely, healthcare education.

It has been found that candidates who have applied via the UCAS Late route have the highest level of performance as first year students. While it has not been determined if this is due to their age and experience that potentially comes with this, or previous academic ability given that a high proportion have previous degrees, it is recommended to consider ensuring the application cycle remains open in order to provide opportunity to this group of applicants.

Students who apply via UCAS Extra are also worthy of consideration, however close attention must be paid to their overall interview performance and academic achievement as this combination of factors allows prediction of success.

All components of the interview process are valuable in determining potentially successful students. However, with regards to the written task, the only factor

which showed to be statistically significant was the quality of the written work: the answers to the questions indicating reflections skills and knowledge of occupational therapy was not shown to be statistically significant in relation to average academic grade on completion of Level One studies.

This provides a potential area for further review and discussion, particularly in view of the introduction, and now requirement of Values Based Recruitment (DoH 2015b: 19). While the 'gold standard' in terms of assessing values and attributes, encouraged by Health Education England (2014: 5) is the use of structured interviews, this research has also highlighted the need to ensure a balance in the drive for Values Based Recruitment with an understanding of the candidate's potential academic ability in order to progress through a programme of studies and meet the programme's learning outcomes. The focus needs to remain balanced with fitness for award in addition to fitness to practice. Feaver (2014: 23) acknowledges this challenge of competing agendas and Farnworth et al (2010: 233) discuss how drivers external to occupational therapy can be so influential to the profession.

At a local level, as admissions tutor of an occupational therapy programme, the findings allow the researcher to make the following recommendations for future practice within their Higher Education Institution:

- To continue use of a variety of assessment tools including a written task and practical tasks within the assessment process.

- To assess the personal statement in terms of: content; style: and writing skills. This allows writing skills to be assessed under both the pressure of

the overall interview process and in the candidate's own time as they prepare their personal statement.

- To continue to accept UCAS Late applications acknowledging the quality of this group of candidates, be that due to their age, experience, or previous level of study.

- To continue to accept UCAS Extra applications, paying careful attention to the written work within the interview process, and the extent to which they meet the academic entry requirements.

6.6 Final conclusion

Data from one cohort of students has been analysed with regards to how the objective factors assessed within the whole interview process may indicate a student's successful completion of one year of BSc (Hons) Occupational Therapy studies. It was determined that no single factor can determine a student's success, but an understanding of the variations in the profiles of students dependant on their UCAS route of entry can inform decision making.

To the best of the researcher's knowledge and research, consideration of the UCAS route of application appears to be a new area of research for healthcare education and definitely for occupational therapy within the United Kingdom. This therefore has the potential to inform the community of practice and other healthcare disciplines and offer a new way of working within some higher education institutions.

While this research does not provide definitive answers, it does validate the use of variety in the assessment tools employed and recognises the need for assessment of both academic and non-academic skills. Additionally it has provided confirmation that extending the admissions cycle to allow UCAS Late applicants is valuable in recruiting high calibre students. Likewise UCAS Extra candidates can also perform well in their first year of studies. Utilising the new knowledge developed through a rigorous research process will make the admissions process stronger.

Ultimately the findings from this research enhance the evidence base to recruit the very best candidates chosen on merit. The complexities (BMA 2009: 5, Callwood, Allan and Courtenay 2012: 835, 836) of healthcare and specifically occupational therapy student recruitment remain. The findings of this research add to the evidence base in this field and provide a clearer focus to the process of recruiting occupational therapy students.

References

6, P., Bellamy, C., (2012) *Principles of Methodology: Research Design in Social Science*. London: SAGE

Aaronson, L., and Burman, M. (1994) 'Use of Health Records in Research: Reliability and Validity Issues'. *Research in Nursing & Health* 17 (1994), 67-73

A-Levels.co.uk (2008) *A-Levels* [online] available from <a-levels.co.uk> [2 July 2015]

Ascend Learning (2012) *Student Attrition: Consequences, Contributing Factors, and Remedies* [online] available from <http://www.atitesting.com/Libraries/pdf/Attrition_whitepaper_ATI_2.sflb.ashx> [6 July 2015]

Bailey, C., Hong, C., and Wright, J. (2006) 'To interview or not to interview? That is the question'. *International Journal of Therapy and Rehabilitation* 13 (11), 490

Balnaves, M., and Caputi, P. (2001) *Introduction to Quantitative Research Methods: an investigative approach* London: SAGE

Berg, B.L. (2001) *Qualitative Research Methods for the Social Sciences.* Boston: Allyn and Bacon

Boak, G., Mitchel, L., and Moore, D. (2012) *Student Fitness to Practise and Student Registration A literature review.* London: Prime Research & Development Limited

Bowling, A., (2002) *Research methods in health: Investigating health and health* services. 2nd edn. New York: Open University Press

Bradley, G. (2013) 'Professional suitability of students at the point of selection: what is it realistic to assess?'. *British Journal of Occupational Therapy* 76 (4), 200-202

Bridle, M., (1987) 'Student Selection: a Comparison of Three Methods'. *Canadian Journal of Occupational Therapy* 54 (3), 113-117

British Medical Association (2009) *Equality and Diversity in UK Medical Schools* London: BMA Marketing and Publications

Bunniss, S., and Kelly, D. (2010) 'Research paradigms in medical education research'. *Medical Education* 44, 358-366

Bureau of Labor Statistics (2014) *Occupational Outlook Handbook Occupational Therapists* [online] available from <http://www.bls.gov/ooh/healthcare/occupational-therapists.htm> [6 July 2015]

Cabinet Office (2010) *The Coalition: our programme for government*. London: HM Government

Callwood, A., Allan, H., and Courtenay, M. (2012) 'Are current strategies for pre-registration student nurse and midwife selection 'fit for purpose' from a UK perspective? Introducing the multiple mini interview'. *Nurse Education Today* 32 (2012), 835-837

Centre for Innovation and Inclusion Research and Institute for Access Studies (2008) *Fair Admissions to Higher Education – a review of the Schwartz report principles three years on: Report 1 – executive summary and conclusions* Sheffield

Clampin, A. (2013) 'Preparing for the future'. *OT News* February, 14

Cohen, L., Manion, L., and Morrison, K. (2005) *Research Methods in Education*. London: Taylor & Francis

College of Occupational Therapists (2008) *Pre-registration Education Standards* 3rd edn. London: COT

College of Occupational Therapists (2011a) *What is Occupational Therapy* [online] available from <http://www.cot.co.uk/ot-helps-you/what-occupational-therapy> [24 June 2014]

College of Occupational Therapist (2011b) *About BAOT/*COT [online] available from <http://www.cot.co.uk/people-structure/about-baotcot> [24 June 2014]

College of Occupational Therapists (2013) *Definitions and Core Skills.* [Essential Briefing] London: COT

College of Occupational Therapists (2014a) *Career Handbook.* 2015-16. London: COT

College of Occupational Therapists (2014b) *Report of the Annual Monitoring of Accredited pre-registration programmes academic year 2010/11.* London: COT

College of Occupational Therapists (2014c) *Learning and development standards for pre-registration education accreditation process.* London: COT

Costley, C., Elliott, G., and Gibbs, P. (2010) *Doing Work Based Research. Approaches to enquiry for Insider-Researchers* . London: SAGE

Coventry University (2009-14) *Low Risk Ethics* [online] available from https://ethics.coventry.ac.uk/support/support-low-risk-projects.aspx [28 January 2014]

Coventry University (2013a) *Academic Regulations for 2013-14, Section 6: Regulations for the undergraduate framework.* Unpublished regulations. Coventry: Coventry University

Coventry University (2013b) *Principles and Standards of Conduct on the Governance of Research* [online]available from < https://students.coventry.ac.uk/ResearchDegrees/Documents/RC12-9%20Policy%20and%20Code%20of%20Conduct%20%20revised%20Aug%202013.pdf> [28th January 2014]

Dale, A., Watham, J. and Higgins, V (2008) 'Secondary Analysis of Quantitative Data Sources'. in *The SAGE Handbook of Social Research Methods.* ed. by Alasuutari, P., Bickman, L., and Brannen, J. London: SAGE

Data Protection Act (1998, c.29) London: The Stationary Office

de Leeuw, E. (2008) 'Self-Administered Questionnaires and Standardized Interviews'. In *The SAGE Handbook of Social Research Methods*. ed. By Alasuutari, P., Bickman, L., and Brannen, J. London: SAGE 313-327

de Vaus, D. (1993) *Surveys in Social Research* 3rd edn. London: UCL Press Ltd

Denscombe, M. (2007) *The Good Research Guide for small-scale social research projects'* 3rd edn. England: Open University Press

Department for Business, Innovation & Skills (2014) *National strategy for access and student success in higher education.* London: Department for Business, Innovation & Skills

Department of Health (2013) *The NHS Constitution: the NHS belongs to us all*. Leeds: DoH

Department of Health, Education & Training Financial Strategy Team (2014) *The NHS Bursary Scheme New Rules*. 3rd edn. Leeds: DoH

Department of Health (2015a) *The NHS Bursary Scheme New Rules* 4th edn. Leeds: DoH

Department of Health (2015b) *Delivering high quality, effective, compassionate care: Developing the right people with the right skills and the right values A mandate from the Government to Health Education England: April 2015 to March 2016* Leeds: DoH

Donaldson, J., McCallum, J., Lafferty, P. (2010) 'Can we predict successful completion of the common foundation programme at interview?' *Nurse Education Today* 30 (2010), 649-656

Donoghue, J., Pelletier, D., Adams, A., and Duffield, C. (2002) 'Recognition of Prior Learning as University Entry Criteria is Successful in Postgraduate Nursing Students' *Innovations in Education and Teaching International* [online] 39 (1), 54-62, available from <www.tandf.co.uk/journals> [2 March 2014]

Farnworth, L., Rodger, S., Curtin, M., Brown, T., and Gilbert Hunt, S. (2010) 'Occupational therapy entry-level education in Australia: Which path(s) to take?'. *Australian Occupational Therapy Journal* 57 (2010), 233-238

Feaver, S. (2014) 'What the standards mean for universities'. *OT News* July, 23

Fink, A. (2003a) *How to Design Survey Studies* 2nd edn. Thousand Oaks, California: SAGE

Fink, A. (2003b) *How to Manage, Analyze, and Interpret Survey Data.* 2nd edn. Thousand Oaks, California: SAGE

Francis, R. (2013) *Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry: Executive Summary* London: Her Majesty's Stationary Office

Grace, P. (2007) 'Future Considerations in Occupational Therapy Education'. *Occupational Therapy in Health Care* 21 (1/2), 281-283

Green, A., and Waterfield, J. (1997) 'Admission and Progression Trends in Physiotherapy Undergraduate Education'. *Physiotherapy* 83 (9), 472-479

Greenbank, P. (2006) 'Institutional admissions policies in higher education: A widening participation perspective'. *International Journal of Educational Management* 20 (4), 249-260

Grove, M. (2015) *Question about GCSE Maths* [email] to Hay, C [12 August 2015]

Health and Care Professions Council (2012) *Standards of Education and Training* London: HCPC

Health and Care Professions Council (2014a) *Education Annual Report* [online] available from <http://www.hcpc-uk.org.uk/assets/documents/100045FF Educationannualreport2013.PDF> [9 October 2014]

Health and Care Professions Council (2014b) *Register of Approved Programmes* [online] available from <http://www.hcpc-uk.org.uk/education /programmes/register/index.asp?EducationProviderID=all&StudyLevel=Undergraduate&ModeOfStudyID=1&IntakeStatus=Open&professionID=6&RegionID=17&RegionID=20&RegionID=7&RegionID=15&RegionID=16&RegionID=13&RegionID=14&RegionID=18&RegionID=19&RegionID=9&RegionID=8&RegionID=10&Submit.x=54&Submit.y=19&Submit=Submit#educationSearchResults> [30 June 2014]

Health and Care Professions Council (n.d.) *About Us* [online] available from <http://www.hcpc-uk.org/aboutus/> [24 June 2014]

Health Education England (2013a) *Health Education England statement on Francis Inquiry*. London: Health Education England

Health Education England (2013b) *Workforce Plan for England, proposed education and training commissions for 2014-15.* Health Education England

Health Education England (2014) *Workforce Planning Guidance 2014-15 for 2015/16 Education Commissions*. Health Education England

Health Education England (2014) *Values Based Recruitment: How to Design and Deliver Structured Interviews for Values Based Recruitment* Health Education England

Health Education England (n.d.) *Values Based Recruitment: How to Design and Deliver Structured Interviews for Values Based Recruitment.* London: Health Education England

Higher Education Funding Council for England (n.d) *Widening Participation* [online] available from <http://www.hefce.ac.uk/whatwedo/wp/> [31 January 2014]

Hicks, C. (1999) *Research Methods for Clinical Therapists: Applied project design and analysis* 3rd edn. Edinburgh: Churchill Livingstone

Higher Education Statistics Agency (n.d. a) *UKPIs Definitions* [online] available from < https://www.hesa.ac.uk/pis/def> [7 May 2015]

Higher Education Statistics Agency (n.d. b) UKPIs: Non-continuation rates (including projected outcomes) (tables T3, T4, T5) [online] available from < https://www.hesa.ac.uk/pis/noncon> [6 July 2015]

Hinton, P., McMurray, I., Brownlow, C. (2014) *SPSS Explained*. 2nd edn. London: Routledge

Howard, L., and Jerosch-Herold, C. (2000) 'Can Entry Qualifications be Used to Predict Fieldwork and Academic Outcomes in Occupational Therapy and Physiotherapy Students?'. *British Journal of Occupational Therapy* 63 (7), 329-334

Howard, L.M., Watson, M.J. (1998) 'A degree in Occupational Therapy: how do traditional and non-traditional routes compare?'. *British Journal of Occupational Therapy* 61 (6), 244-248

IBM Corporation (2013) *IBM SPSS Statistics for Windows Version 20.0* New York: Armonk

Jordan, J., Cohen, B., Terrell, C., and Terrell, G. (2002) ' The Case for Diversity in the Health Care Workforce'. *Health Affairs* 21 (5), 90-102

Kent, R. (2001) *Data construction and data analysis for survey research.* Hampshire: Palgrave Macmillan

Knapp, H. (2014) *Introductory Statistics Using SPSS* California: SAGE

Law, M., Stewart, D., Pollock, N., Letts, L., Bosch, J., and Westmorland, M. (1998) *Guidelines for Critical Review Form – quantitative studies* [online] available from <http://www.srs-mcmaster.ca/Portals/20/pdf/ebp/quanguidelines.pdf> [10 July 2013]

Learning Consultancy Partnership (2013) *What is the difference between higher education and further education?* [online] available from <http://lcp.org.uk/index.php/2012/03/whats-difference-between-higher-education-further-education/> [13 December 2013]

Locke, L., Spirduso, W., and Silverman, S. (2007) *Proposals that work: a guide for planning dissertations and grant proposals*. 5th edn. Thousand Oaks California: SAGE

Lyons, M., Mackenzie, L., Bore, M., and Powis, D. (2006) 'Framing a set of non-academic selection criteria for occupational therapy students: An Australian study'. *Australian Occupational Therapy Journal* (2006) 53, 284-292

Lysaght, R., Donnelly, C., and Villeneuve, M. (2009) 'Factors predicting applicant outcomes in occupational therapy education'. *Revue Canadienne D'ergothérapie* 1 (76), 38-47

Mertens, D. (1998) *Research methods in education and psychology: integrating diversity with quantitive and qualitative approaches.* California: SAGE

Moore, J., Sanders, J., and Higham, L. (2013) *Literature review of research into widening participation to higher education* Aimhigher Research and Consultancy Network

NI Direct Government Services (2014) Bachelor's Degrees [online] available from <http://www.nidirect.gov.uk/degrees> [22 June 2015]

Nilsen, A. (2008) 'The History of Social Research Methods'. in *The SAGE Handbook of Social Research Methods.* ed. by Alasuutari, P., Bickman, L., and Brannen, J. London: SAGE

O'Brien, A., Harvey, J., Shanon, M., Lewis, K., Valencia, O. (2011) 'A comparison of multi-min-interviews and structured interviews in a UK setting'. *Medical Teacher* 2011 (33), 397-402

Osbourne, J. (2013) *Best Practices in Data Cleaning* London: SAGE

Panter, A., and Sterba, S. (2011) *Handbook of Ethics in Quantitative Research* . New York: Routledge Taylor & Francis Group

Parker, M. (2006) 'Assessing professionalism: theory and practice'. *Medical Teacher* 28 (5), 399-403

Parkin, C. (2014) *Report of the annual monitoring of accredited Pre-Registration Occupational Therapy education programmes Academic Year 2010/11* London: College of Occupational Therapists

Passy, R., Morris, M., and Waldman, J. (2009) *Evaluation of the impact of Aimhigher and widening participation outreach programmes on learner attainment and progression, interim report* London: National Foundation for Educational Research

Pearson (2012) *UK Quality Assurance BTEC Handbook 2012-13.* Pearson

Pearson (2015) About BTEC [online] available from <http://qualifications.pearson.com/en/about-us/qualification-brands/btec/about-btec.html> [27 April 2015]

Perkins, A., Burton, L., Dray, B., and Elcock, K. (2013) 'Evaluation of multiple-mini-interview protocol used as a selection tool for entry to an undergraduate nursing programme'. *Nurse Education Today* 33 (2013), 465-469

Polgar, S., Thomas, S. (2008) *Introduction to Research in the Health Sciences.* 5th edn. Philadelphia: Elsevier Limited

Posthuma, B., and Noh, S. (1990) 'Interview Scores and Academic Grades as Selection Criteria for Admission to an Occupational Therapy Program' *Canadian Journal of Occupational Therapy* 1990 (57), 285-291

Posthuma, B., and Sommerfreund, J. (1985) 'Examination of Selection Criteria for a Program in Occupational Therapy'. *The American Journal of Occupational Therapy* 39 (7), 441-445

Punch, K. (2003) *Survey Research: the basics*. London: SAGE

Roberts, P. (2006) 'Reliability and Validity in Research'. *Nursing Standard* 20 (44), 41-45

Rottenburg, J. (2014) *The Depths: The Evolutionary Origins of the Depression Epidemic*. New York: Basic Books

Rouse, J., and Torney, L. (2014) 'Service user and carer involvement in pre-registration student selection'. *Nursing Standard* 28 (50) 37-44

Sadler, J. (2003) 'Effectiveness of student admission essays in identifying attrition'. *Nurse Education Today* 23, 620-627

Salamonson,Y., Everett, B., Cooper, M., Lombardo, L., Weaver, R., and Davidson, P. (2014) 'Nursing as first choice predicts nursing program completion'. *Nurse Education Today* 34 (2014), 127-131

Sapsford, R. (2007) *Survey Research.* 2nd edn. Thousand Oaks, California: Sage

Schwartz, S. (2004) *Fair admissions to higher education: recommendations for good practice* [online] Nottingham: Department for Education and Skills Publications. Available from < http://www.admissions-review.org.uk/downloads/finalreport.pdf > [3 March 2013]

Shanahan, M. (2004) 'Does Age at Entry have an Impact on Academic Performance in Occupational Therapy Education?'. *British Journal of Occupational Therapy* 67 (10), 439-446

Sim, J., and Wright, C. (2000) *Research in Health Care: Concepts, Designs and Methods.* Cheltenham: Nelson Thornes Ltd

Strategic HR Inc. (2010) *The Difference between Applicants and* Candidates [online] available from <http://www.strategichrinc.com/hrblog/2010/11/01 /question-of-the-week-november-1-2010/> [28 January 2014]

Supporting Professionalism in Admissions (2012) *What makes an effective admissions operation?* [online] available from <http://www.spa.ac.uk/support/goodpractice/effectiveadmissionso/> [22 June 2015]

Szafran, R. (2012) *Answering Questions with Statistics.* Thousand Oaks, California: SAGE

Taylor, M.C. (2007) *Evidence-based practice for occupational therapists*. Oxford: Blackwell publishing

Taylor, R., Macduff, C., and Stephen, A. (2014) 'A national study of selection processes for student nurses and midwives' *Nurse Education Today* 34 (2014), 1155-1160

The Panel on Fair Access to the Professions (2009) *Unleashing Aspiration: The Final Report of the Panel of Fair Access to the Professions* [online] available from <http://www.agcas.org.uk/assets/download?file=1208&parent=465> [31 January 2014]

The Quality Assurance Agency (2001) *Benchmark Statement: Healthcare Programmes. Occupational Therapy* Gloucester: QAA

The Quality Assurance Agency (2014) *UK Quality Code for Higher Education, Part A: Setting and Maintaining Academic Standards.* Gloucester: QAA

The Quality Assurance Agency (n.d.) *What is Access to HE?* [online] available from <https://www.accesstohe.ac.uk/Pages/Default.aspx> [22 June 2015]

Timer, J., and Clauson, M. (2011) 'The use of selective admissions tools to predict students' success in an advanced standing baccalaureate nursing program'. *Nurse Education Today* 31 (2011), 601-606

Times Higher Education (2003) ‘Ucas Extra sparks rise in mid-year applications’. *Times Higher Education* [online] 25 April 2003 available from < http://www.timeshighereducation.co.uk/news/ucas-extra-sparks-rise-in-mid-year-applications/176240.article> [28 April 2015]

UCAS (n.d. a) *About* Us [online] available from <http://www.ucas.com/about-us> [28 January 2014]

UCAS (n.d. b) *Adding Extra Choices* [online] available from <http://www.ucas.com/how-it-all-works/undergraduate/tracking-your-application/adding-extra-choices> [29 January 2014]

UCAS (n.d. c) *Apply and Track your Application* [online] available from <http://www.ucas.com/apply/undergraduate> [21 January 2015]

UCAS (n.d. d) *Clearing information – if you have no* offers [online] available from <http://www.ucas.com/how-it-all-works/undergraduate/results/if-you-have-no-offers> [23 December 2014]

UCAS (n.d. e) *Inside* UCAS [online] available from <http://www.ucas.com/about-us/inside-ucas> [28 January 2014]

UCAS (n.d. f) *References, payment and sending* [online] available from <http://www.ucas.com/how-it-all-works/undergraduate/filling-your-application/references-payment-and-sending> [25 June 2014]

UCAS (n.d. g) *Your personal statement* [online] available from <http://www.ucas.com/how-it-all-works/undergraduate/filling-your-application/your-personal-statement> [25 June 2014]

UCAS (n.d. h) *Key dates* [online] available from <https://www.ucas.com/ucas/undergraduate/apply-and-track/key-dates> [7 March 2016]

UCAS (2014) End of Cycle Report 2014 UCAS Analysis and Research

UCAS (2016a) *It's not too late to apply* [online] available from <https://www.ucas.com/connect/blogs/its-not-too-late-apply-1> [7 March 2016]

UCAS (2016b) *Filling in your application* [online] available from <https://www.ucas.com/ucas/undergraduate/apply-and-track/filling-your-application> [4 April 2016]

University of Oxford (2014) *What are CATS points?* [online] available from <https://www.conted.ox.ac.uk/students/currentstudents/faq/cats.php> [20 November 2014]

Unluer, S. (2012) 'Being an Insider Researcher While Conducting Case Study Research'. *The Qualitative Report* 17 (58), 1-14

Van Rooyen, P., Dixon, A., Dixon, G., and Wells, C. (2006) 'Entry criteria as predictor of performance in an undergraduate nursing degree programme'. *Nurse Education Today* (2006) 26, 593-600

Vargo, J., Madill, H., and Davidson, P. (1986) 'The Pre-Admission Interview as a Predictor of Academic Grades and Fieldwork Performance'. *Canadian Journal of Occupational Therapy* 53 (4), 211-215

Watson, J. (2013) 'Progression routes and attainment in occupational theapy education: the impact of background characteristics'. *British Journal of Occupational Therapy* 76 (12), 520-528

Wellman, B. (1998) 'Doing It Ourselves: The SPSS Manual as Sociology's Most Influential Recent Book*'* in *Required Reading: Sociology's Most Influential Recent Books*. Ed.by Clawson, D. Amherst, Canada: University of Massachusetts Press, 71-78

Westcott, L. (2014) 'What the standards mean for universities'. *OT News* July, 23

Wharrad, H., Chapple, M., and Price, N. (2003) 'Predictors of academic success in a Bachelor of Nursing course'. *Nurse Education Today* (2003) 23, 246-254

Wilson, T. (1999) 'A student selection method and predictors of success in a graduate nursing program'. *Journal of Nursing Education* 38 (4), 183-187

Wisker, G (2008) *The Postgraduate Research Handbook.* 2nd edn. Hampshire: Palgrave MacMillan

World Federation of Occupational Therapists (2011) *Entry Level Educational Programmes WFOT Approved* [online] available from <http://www.wfot.org/Education/EntrylevelEducationalProgrammesWFOTApproved.aspx> [13 April 2015]

Appendices

Appendix 1 Overview of UCAS applications:

As identified within the introduction, prospective students apply for a place on the programme via the University and Colleges Admissions System (UCAS). This has various deadlines by which applicants need to have submitted their application. There are three main types of application:

- UCAS – on-time application and applicants can apply to up to five courses
- UCAS Extra – applicants who have applied for five courses but are not holding any offers so are able to apply for one further course at a time.
- UCAS Late – candidates who apply after 30th June. This is after a UCAS deadline and universities do not guarantee to review their application as courses may be full at this point.

A fourth opportunity to apply is via the UCAS 'Clearing' system. This is an opportunity for potential applicants to identify which courses have places remaining. Candidates are then eligible to apply from July if they are not holding a place at any other institution (UCAS n.d. d). This group of potential applicants has been excluded from the project as they are not interviewed using the same assessment tools and therefore do not provide comparable data. This is a very small proportion (less than 1%, n=1) of the reviewed cohort.

UCAS (n.d. c)

Appendix 2 Interview components

2a – Group Task 1: Synopsis of and link to media clip

Candidates were shown one of the following media clips. There was variation to ensure candidates did not know what they would be watching, however it was found that clip 3 provoked the most conversation among candidates and so this was used more frequently.

Clip 1 – *Prader Willi Syndrome*

An American news piece interviewing a 17 year old boy and his family about their experiences of living with Prada Willi.

http://www.youtube.com/watch?v=OB7tbp3rzv4&feature=watch-vre

Clip 2 – *Stephen Fry on Manic Depression*

An interview where Stephen Fry explains the feelings of Manic Depression.

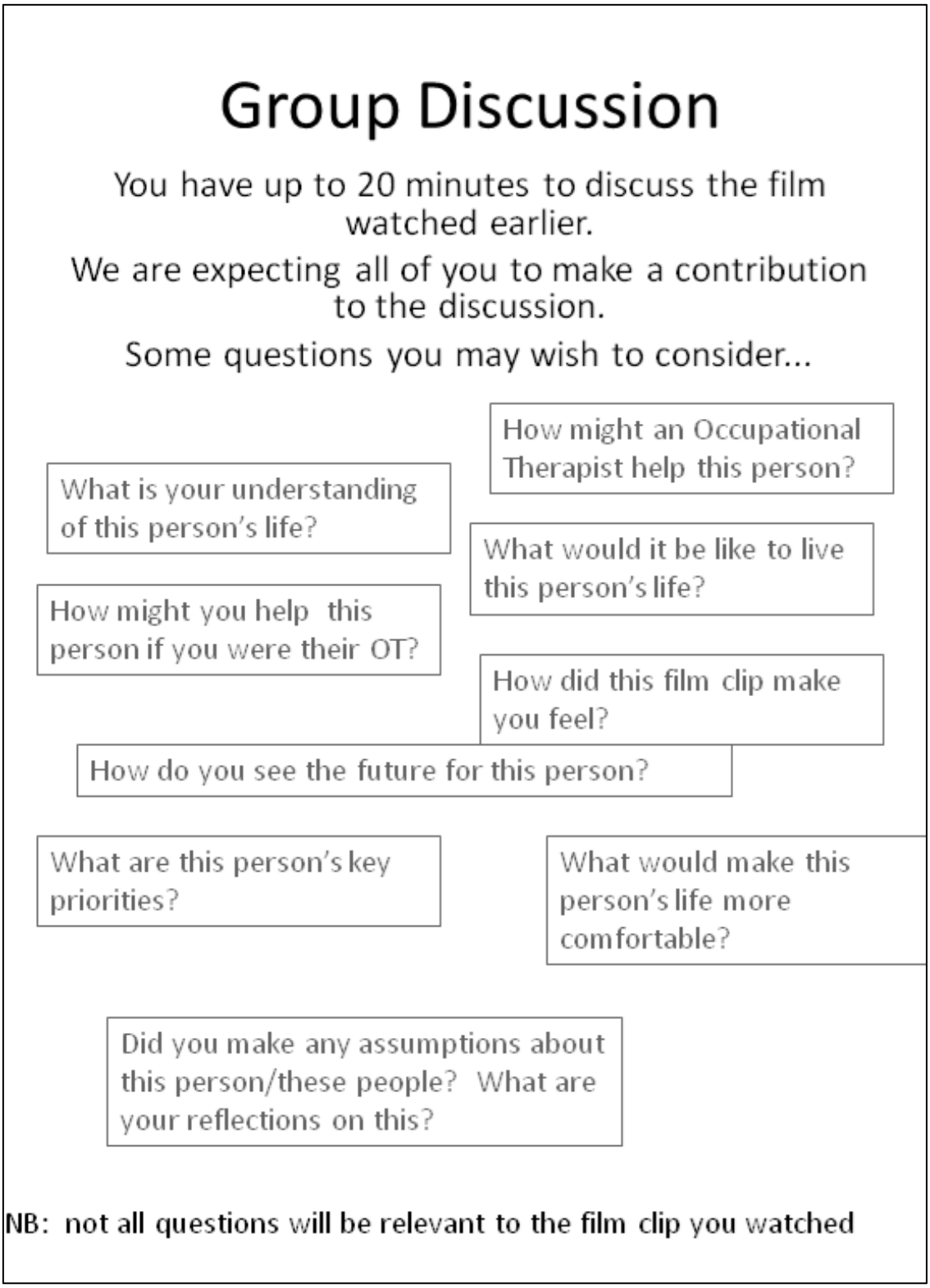
http://www.youtube.com/watch?v=cKiAz6ndUbU

Clip 3 – *Robert Melvin – Being Different*

Documentary media clip from the 1960s in which Mr Melvin and his family discuss their experiences of him being 'The Modern Day Elephant Man'.

http://www.youtube.com/watch?v=zxix_1v5DeM

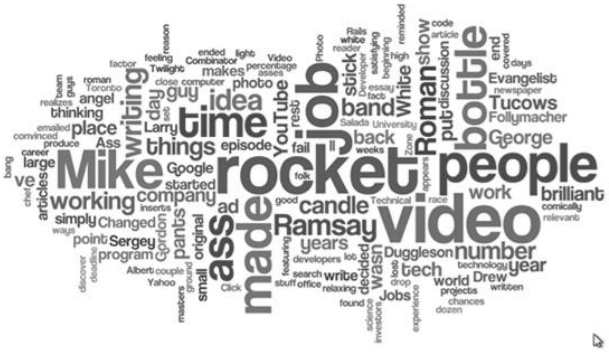
2b – Group discussion task about media clip

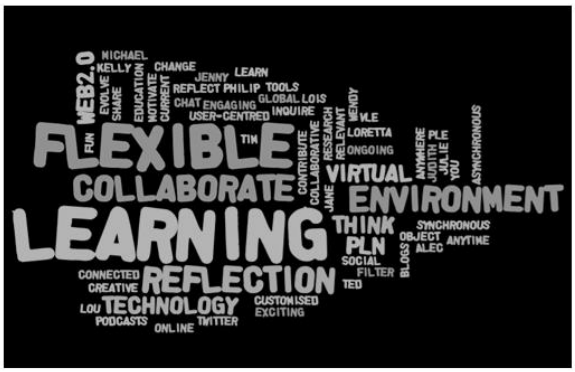


2c – Group Task 2: Overview of Task requirements

Group Activity

- Utilising the resources provided, your group has 20 minutes to create a Wordle.
- This should identify the personal and professional skills you will gain and develop on your journey to becoming an occupational therapist.
- An example is on the reverse of this sheet.
- You may wish to consider the size and positioning of each word/phrase. How important to you consider each quality to be?
- On completion of the task you will be asked to present your Wordle to the Lecturers and Practitioners within the room.





2d – Written Task Instructions and Questions

Occupational Therapy – Interview Forum

Name: _____

Date of Birth: _____

Today's Date: _____

You have up to 30 minutes to answer the following questions.

(people who have identified that need extra time due to additional needs will have 38 minutes)

Please read through the questions carefully.

We will be assessing both the content of your answers and the writing style and presentation.

Questions

1. How did you prepare for the interview today?
2. What work or personal experience do you have (or have planned) that has influenced your decision to want to become an occupational therapist?
3. How would you describe/define the role of an occupational therapist?
4. What does the word 'disability' mean to you?
5. What personal or professional qualities do you think an occupational therapist needs to work effectively with service users?
6. Please identify **one** of these qualities that you think you have and discuss how you know you have this quality.
7. In reflecting on today's group activities: What interpersonal skills (verbal and non-verbal) do you feel you demonstrated?
8. In reflecting on today's group activities: What role do you feel you took within the group activities? Is this a reflection of the role you would normally take within group work?

In reflecting on today's group activities: Do you feel that your group collaborated on these tasks? What worked well? What could have been done differetly?

Appendix 3 Applicant decision sheet

Page 1

Occupational Therapy Department Interview Decision Sheet

Final Decision Reject Conditional offer Firm Insurance Decline Confirmation Accept Reject		Route: FT PT PTIS - C PTIS - S FT Second	
SURNAME:	FIRST NAME		Year of Entry: 2013 2014
Telephone		Email	
Date of Interview:		Disability: Yes No	Details:
CRB Issue: Yes No	Police Panel: Yes No	Police Panel Outcome:	

Work Experience completed before interview?	Yes	No	Planning / Booked

RECOMMENDED DECISION FROM INTERVIEW PERFORMANCE (Please tick)

Accept	**Reject**

Final Decision

Accept		Reject		Waiting List		Defer Entry	
Reason/s for Decision						Date Decision Entered on SONIC: _____	
			Required?			**Achieved?**	
Conditions of offer	Enhanced CRB & Occupational Health Clearance		✓ ALL APPLICANTS				
	260 UCAS points or equivalent						
	OT experience by 31.07.13						
	Proof of qualifications by 31.07.13						
	Other						

Admissions Tutor: Carolyn Hay [redacted]	Signature: Date:

Notes:

Interviewer 1: Name:	Signature:	Interviewer 2: Name	Signature

	Excellent (E)	Very Good (VG)	Good (G)	Satisfactory (S)	Poor (P)	E/VG/G/S/P
Personal Statement	As v good but written about with meaning e.g. they develop their own personal experience within the statement. They have explored the concept of what OT is all about & have related this comprehensively to their own personal experience.	Explores the concept of what OT is about e.g. they have a keen interest in helping others, the use of activity to increase independence , they want to work in a caring or challenging profession.	They are more aware of why they want to study OT(e.g. personal experience), but unable to give any depth to this	Have a biased idea of why they want to study OT, maybe too focussed on one aspect of the profession	Tentative. Wants to be a health professional but not specified OT. Lacks commitment to the profession	
Reference	Insightful to the OT profession and how suitable candidate is for this career choice and their attempts to further their knowledge about the profession	A well written reference that verifies what the candidate has written about themselves.	Referee discusses candidate in general terms. Does not indicate their individual qualities which may be relevant to a career in OT	Does not reflect what the candidate has said about themselves	May comment on specific difficulties or be lacking in detail. Not academic.	
Group Discussion	Encourages other group members to get involved; takes a lead very appropriately; communicates in a very thoughtful and perceptive manner; demonstrates good use of initiative during activity; fully engaged in the activity. Demonstrated insightful and sensitive interpretation of issues raised within the film.	Communicates effectively with other group members; involved in discussion for all of the session; demonstrates some use of initiative; prominent, but appropriate group member. Demonstrated very good interpretation of issues raised within the film.	Involved in discussion for all/most of the session; use of initiative; effective communication with other group members. Demonstrated adequate-fair understanding of issues raised within the film.	Attempts to get involved in discussion; quiet member of the group; able to communicate with other group members at times; demonstrates some initiative. Demonstrated limited interpretation of issues raised within the film.	Does not get involved in group discussion or dominates group activity without consideration of others; does not demonstrate use of initiative; unable/struggles to communicate appropriately with other group members. Demonstrated little/no interpretation/understanding of issues raised within the film.	
Group Task	Encourages other group members to get involved; takes a lead appropriately; communicates in a thoughtful and perceptive manner; demonstrates use of initiative during activity; fully engaged in the activity	Communicates effectively with other group members; involved in activity for majority of session; demonstrates use of initiative; prominent, but appropriate group member	Involved in activity for most of the session; some use of initiative; effective communication with other group members	Attempts to get involved in activity; quiet member of the group; able to communicate with other group members appropriately; demonstrates some initiative	Does not get involved in group activity or dominates group activity without consideration of others; does not demonstrate use of initiative; unable to communicate appropriately with other group members	
Written Task Section 1 OT questions	Have a working knowledge of variety of settings and can discuss with meaning what they have observed, have an understanding of the OT role. 1 - 2 weeks experience or longer. May be an OT assistant or health care support worker. Demonstrate a clear insight into the profession and the necessary skills to be an OT, also refer to other aspects of the profession e.g. focus on increasing independence, quality of life, empowerment, client centred. Demonstrate relevant individual qualities in their activities and link this to their insight of how they are suitable to be an OT	Have attempted to gain broad view of what OT is all about with different work experiences Some insight into the profession and the necessary skills to be an OT. Demonstrate additional relevant individual qualities in their activities, not specifically related to their academic skills, e.g. part-time work, time management.	Have attempted to gain a broad view of OT, through shadowing 1-2 days or have attended careers talks. If they have been unable to gain OT work shadowing have worked within health care to gain experience this way. Demonstrate an awareness of the range of the range of settings that OTs work in. Attempted to relate experience to their insight Demonstrate limited qualities unable to link these to a career in OT	Very limited experience. Presented descriptively which indicates a limited understanding. Skills they have observed are listed descriptively Qualities are listed descriptively with no link to insight	May discuss their personal experience of OT or of a relative but unable to think wider than their experience. Little or no evidence of insight in to the profession Very limited or no personal qualities mentioned	
Section 2 Reflection on Group Task & Discussion	Demonstrates a very good ability to reflect on self and others role and consider areas for improvement	Demonstrates an ability to reflect objectively on self and others roles	Demonstrates an ability to reflect on own role within group	Predominately descriptive account, some attempt to reflect demonstrated	Descriptive account. Takes no responsibility for own role	
Clarity of expression, Writing style and presentation	Ideas expressed with clarity, no spelling errors and grammatically correct throughout	Ideas clearly expressed, minor spelling errors and grammatically correct for majority	Ideas expressed well, some spelling errors or incorrect grammar	Ideas expressed satisfactorily, spelling or grammatical errors	Poorly written, major spelling and grammatical errors	

Appendix 4 Extract of university academic regulations

‘6.5 Progression

6.5.1 To progress from one stage of a course to a subsequent stage, whether by full-time or part-time study, a student must pass all modules required by the previous stage, which includes meeting any pre-requisite or any other requirement set out in the course definitive documentation.

6.5.2 Students who fail to attain sufficient modules to progress as set out in 6.5.1 above may, at the discretion of the Programme Assessment Board:

a) be transferred onto a new course subject to eligibility and availability; or

b) be required to repeat the year, in whole or part, which may include proceeding on a further year of study at the same stage on a ‘mixed diet’ of modules at different levels; or

c) be recommended to withdraw from the course; or

d) have their course terminated (see 4.1d).’

Coventry University (2013b: 5)

Appendix 5 Data entry coding

Heading	Label	Location of Data	Coding	
ID	Identification Number	Excel Sheet	Predetermined 3 digit number	
DOB_Month	Date of Birth (Month)	SONIC	1 2 3 4 5 6 7 8 9 10 11 12	January February March April May June July August September October November December
DOB_Year	Day of Birth (Year)	SONIC	Enter date 19XX	
Age_on_Entry	Age as of 1st September 2013	SONIC	Use age shown on UCAS form	
Gender	Gender	SONIC	1 2	Female Male
Disability	Disability	SONIC	1 2 3 4 5 6 7 8 9 10	A No disability B Social/communication impairment C Blind or serious visual impairment uncorrected by glasses D Deaf or serious hearing impairment E Long standing illness or health condition. F Mental health condition, G Specific learning H Physical impairment or mobility issues I Disability, impairment or medical condition that is not listed above J Two or more impairments and /or disabling
Ethnicity	Ethnic Origin	SONIC	10 11 12 13 14 15 19 21 22 29 31 32 33	White White-British White - Welsh White-Scottish Irish Traveller Gypsy or Traveller Other White Background Black or Black British - Caribbean Black or Black British – African Other Black Background Asian or Asian British – Indian Asian or Asian British – Pakistani Asian or Asian British –Bangladeshi

			34	Chinese
			39	Other Asian Background
			41	Mixed- White and Black Caribbean
			42	Mixed – White and Black African
			43	Mixed – White and Asian
			49	Other Mixed Background
			50	Arab
			80	Other Ethnic Background
			90	Not known
			99	Information refused
Highest_Qual	Identify their highest level of qualification (may not be most recent)	SONIC	1	A-Level (A2)
			2	Degree
			3	Access
			4	Health & Social Care QCF BTEC
			5	Extended Diploma
			6	Irish Leaving Certificate
			7	NVQ Level 3
			8	Masters
			9	Health & Social Care QCF BTEC
			10	Diploma
			11	Cert HE
			12	BTEC (other subjects & levels)
			19	Health & Social Care Foundation
			20	Year
			21	Diploma in Higher Education
				International Qualification
				Other
Date_Highest_qual	Year completed	SONIC	Enter Date as 4 digits	
Recent_Qual	Most recent qualification (may be same as Highest qual	SONIC	1	A-Level (A2)
			2	Degree
			3	Access
			4	Health & Social Care QCF BTEC
			5	Extended Diploma
			6	Irish Leaving Certificate
			7	NVQ Level 3
			8	Masters
			9	Health & Social Care QCF BTEC
			10	Diploma
			11	Cert HE
			12	BTEC (other subjects and levels)
			19	Health & Social Care Foundation
			20	Year
			21	Diploma in Higher Education
				International Qualification
				Other
Date_Recent_Qual	Year completed	SONIC	Enter Date as 4 digits	
Met_Req	Met entry requirements	SONIC	1	Yes
			2	No
App_Route	UCAS route used	SONIC	1	UCAS
			2	UCAS Late
			3	UCAS Extra
App_Decision	Application decision re: offer	SONIC	1	CF/UF
			2	CI/UI
Work_Exp	Already got Work	OT Form	1	Yes

	Experience?		2	No
Int_PS	Grade awarded to Personal Statement	OT Form	1 2 3 4 5 9	Poor Satisfactory Good Very Good Excellent No Grade recorded
Int_Ref	Grade awarded to Reference	OT Form		As Above
Int_Gp_Disc	Grade awarded to Group Discussion	OT Form		As Above
Int_Gp_Task	Grade awarded to Group Task	OT Form		As Above
Int_Writ_OT	Grade awarded to responses to OT questions	OT Form		As Above
Int_Writ_Ref	Grade awarded to reflection in written task	OT Form		As Above
Int_Write_Style	Grade awarded to writing style of written piece	OT Form		As Above
Ac_xxxXX_Grade	*Module Grade. Details not provided to ensure confidentiality	Universe		Enter % 101 – no grade awarded (Deferred, no previous attempts)
Ac_xxxXX_Pass	On what attempt was it passed?	Universe	1 2 3 4	First submission Resit submission Defer Carried into Level Two
* Details of modules are not provided to ensure confidentiality				
Av_Grade_Plac	Average Grade including placements (excludes 133OT)	Manual Calculation	Enter grade NB: exclude incomplete modules from calculation	
Av_Grade_Ac	Average Grade excluding placements	Manual Calculation	Enter grade NB: exclude incomplete modules from calculation	
Yr_2	Number of modules carried into Year 2	Manual Calculation	How many modules carried into year 2?	

Appendix 6 Ethics review feedback form

Selecting Successful Students: a cohort survey of first year BSc (Hons) Occupational Therapy students. P22082

REGISTRY RESEARCH UNIT

ETHICS REVIEW FEEDBACK FORM

(Review feedback should be completed within 10 working days)

Name of applicant: Carolyn Hay.....

Faculty/School/Department: [Faculty of Health and Life Sciences] Occupational Therapy

Research project title: Selecting Successful Students: a cohort survey of first year BSc (Hons) Occupational Therapy students.

Comments by the reviewer

1. Evaluation of the ethics of the proposal:

No issues identified

2. Evaluation of the participant information sheet and consent form:

NA

3. Recommendation:

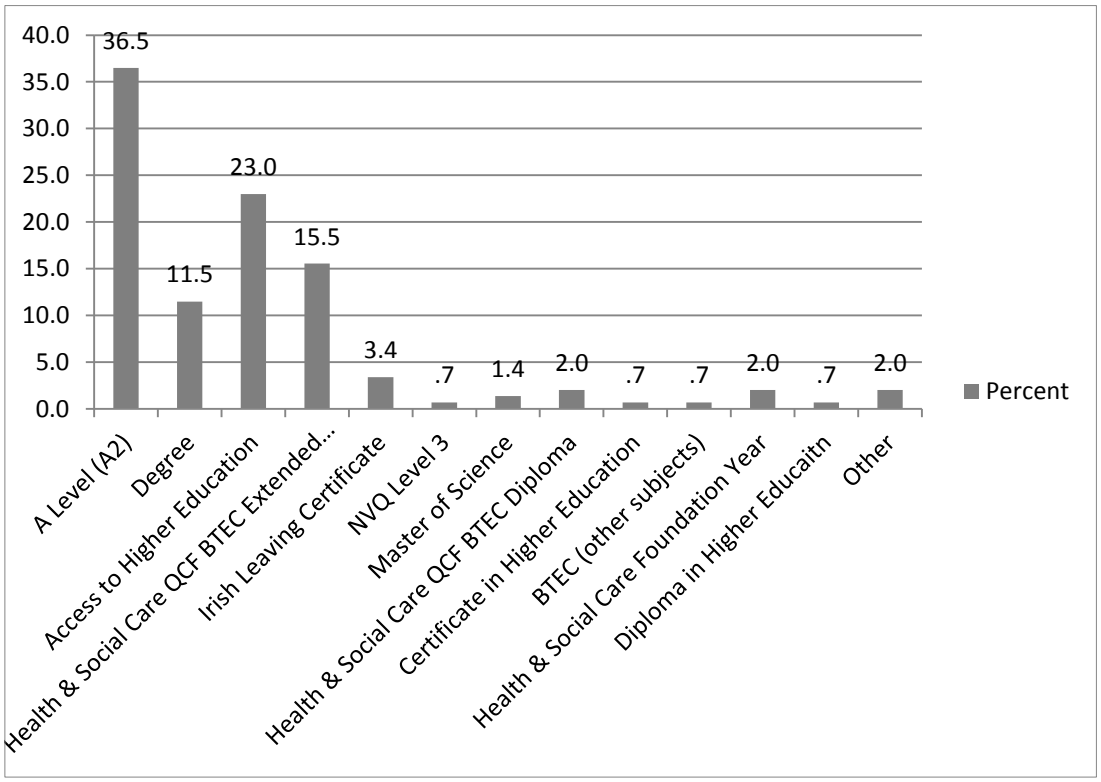
(Please indicate as appropriate and advise on any conditions. If there any conditions, the applicant will be required to resubmit his/her application and this will be sent to the same reviewer).

X	Approved - no conditions attached
	Approved with minor conditions (no need to re-submit)
	Conditional upon the following – please use additional sheets if necessary (please re-submit application)
	Rejected for the following reason(s) – please use other side if necessary
	Not required

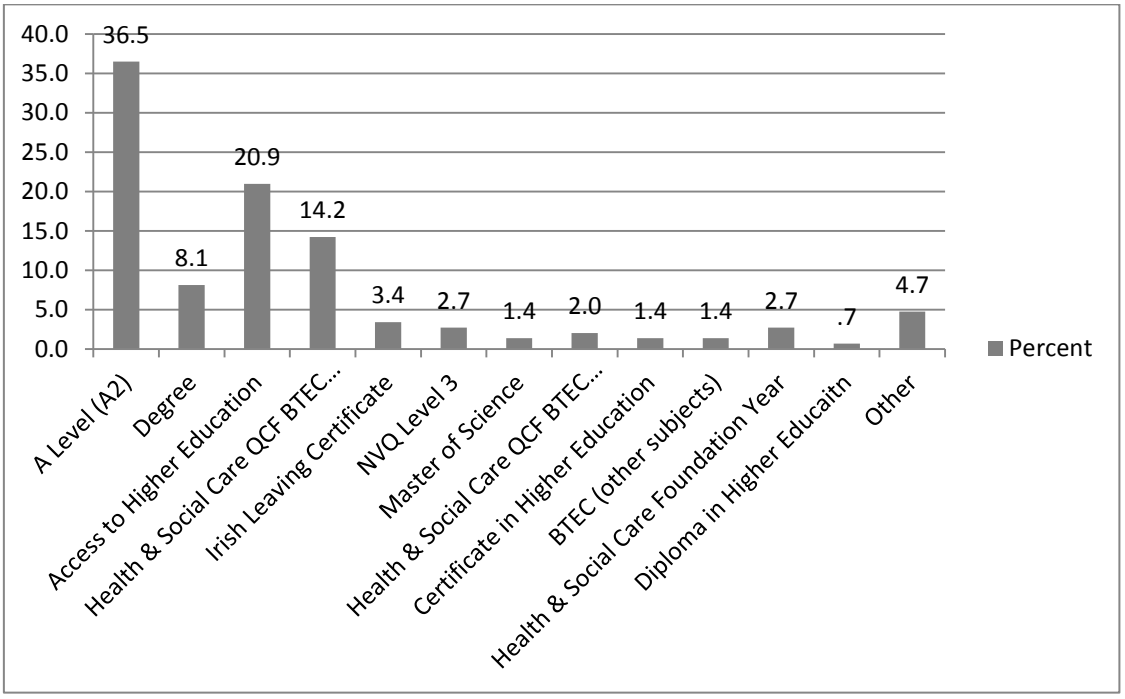
Name of reviewer: Anonymous.....

Appendix 7 Breakdown of sample by qualification

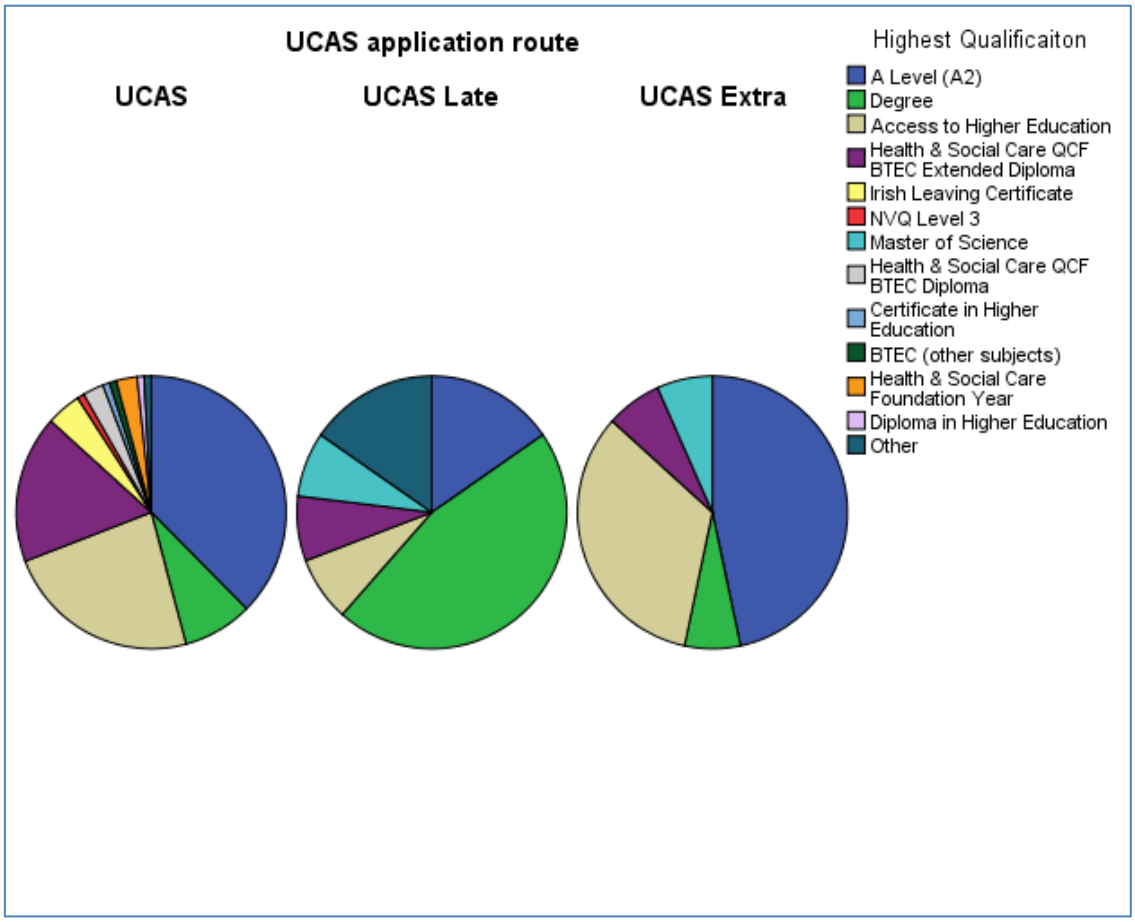
Breakdown by highest qualification



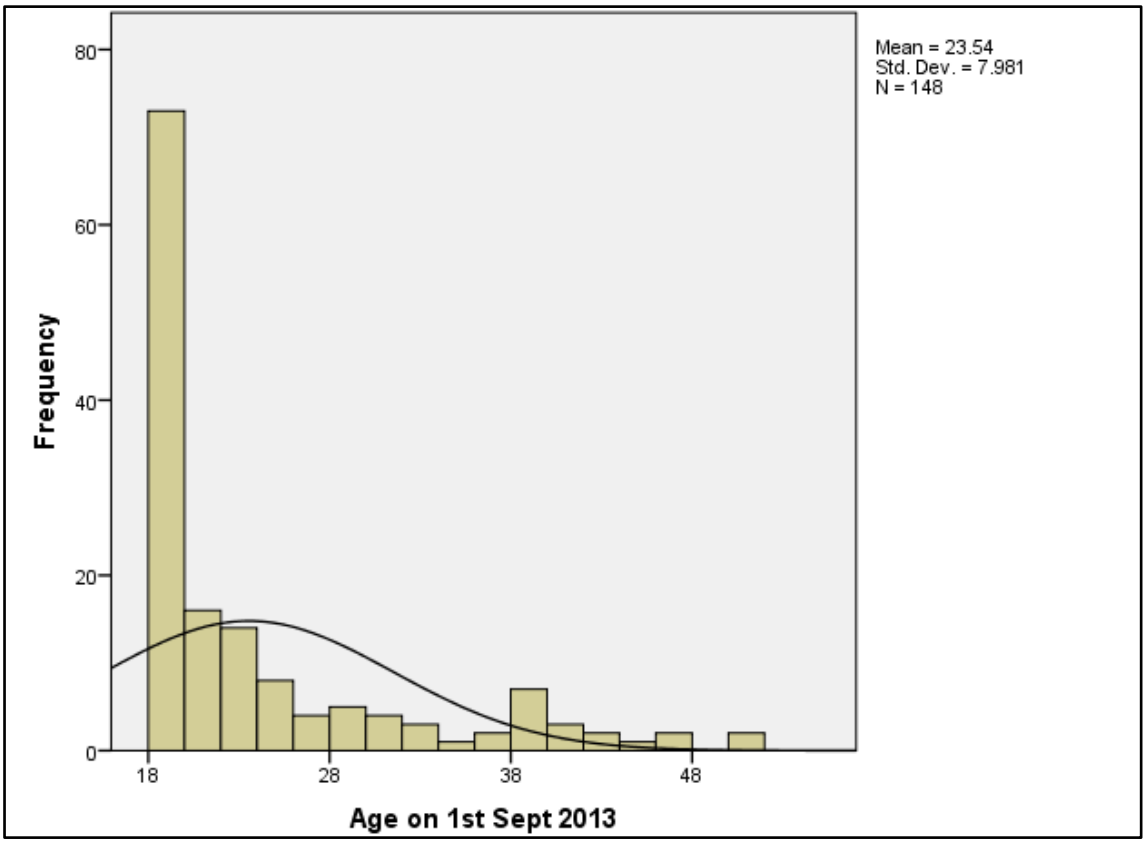
Breakdown by most recent qualification



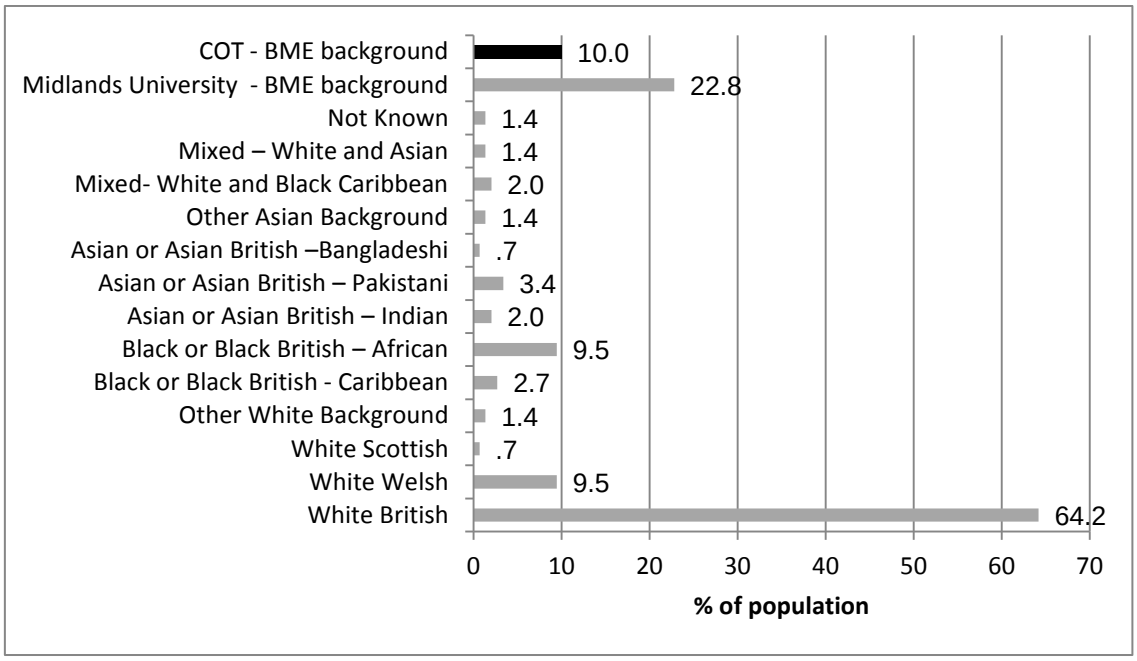
Breakdown by highest qualification and UCAS route of application



Appendix 8 Age of sample – detailed breakdown



Appendix 9 Ethic origin of sample – detailed breakdown



Appendix 10 Declared disabilities of sample – detailed breakdown

	Sample Population	
	Frequency	Percent
No Disability	132	89.2
Social/Communication disorder	1	0.7
Long standing illness or health condition	2	1.4
Mental Health Condition	2	1.4
Specific learning	10	6.8
Specific learning Disability, impairment or medical condition that is not listed above	1	0.7
Total	148	100.2

Appendix 11 Hypotheses with p value and decision to accept or reject null hypothesis

			Statistical Test Applied	Sig Value (p=)	
Hypothesis 1i	H_0	There is no difference between a candidate's UCAS route of entry and their average academic grade including placement.	One-way ANOVA	.048	Evidence that H_1 is true
	H_1	**There is a difference between a candidate's UCAS route of entry and their average academic grade including placement.**			
Hypothesis 1ii	H_0	There is no difference between a candidate's UCAS route of entry and their average academic grade excluding placement.	One-way ANOVA	.037	Evidence that H_1 is true
	H_1	**There is a difference between a candidate's UCAS route of entry and their average academic grade excluding placement**.			
Hypothesis 2	H_0	**There is no difference between a candidate's UCAS route of entry and their practice placement grade.**	One-way ANOVA	.085	Retain the Null Hypothesis
	H_1	There is a difference between a candidate's UCAS route of entry and their practice placement grade.			
Hypothesis 3	H_0	**There is no difference between a candidate's UCAS route of entry and the number of modules passed on first attempt.**	One-way ANOVA	.102	Retain the Null Hypothesis
	H_1	There is a difference between a candidate's UCAS route of entry and the number of modules passed on first attempt.			

			Statistical Test Applied	Sig Value (p=)	
Hypothesis 4	H_0	**There is no difference between a candidate's UCAS route of entry and the number of modules carried into Year Two studies**	One-way ANOVA	.687	Retain the Null Hypothesis
	H_1	There is a difference between a candidate's UCAS route of entry and the number of modules carried into Year Two studies			
Hypothesis 5	H_0	There is no difference between a candidate's UCAS route of entry and age of the candidate.	One-way ANOVA	.007	Evidence that H_1 is true
	H_1	**There is a difference between a candidate's UCAS route of entry and age of the candidate.**			
Hypothesis 6i	H_0	There is no difference between a candidate meeting the course academic entry requirements and their average academic grade (including placement grade)	Independent Samples t-test	.010	Evidence that H_1 is true
	H_1	**There is a difference between a candidate meeting the course academic entry requirements and their average academic grade (including placement grade).**			
Hypothesis 6ii	H_0	There is no significant difference between a candidate meeting the course academic entry requirements and their average academic grade (excluding placement grade)	Independent Samples t-test	.033	Evidence that H_1 is true
	H_1	**There is a significant difference between a candidate meeting the course academic entry requirements and their average academic grade (excluding placement grade).**			

			Statistical Test Applied	Sig Value (p=)	
Hypothesis 7i	H_0	**There is no difference between the score for a candidate's personal statement and their average academic grade (including placement grade)**	One-way ANOVA	.191	Retain the Null Hypothesis
	H_1	There is a difference between the score for a candidate's personal statement and their average academic grade (including placement grade)			
Hypothesis 7ii	H_0	**There is no difference between the score for a candidate's personal statement and their average academic grade (excluding placement grade)**	One-way ANOVA	.096	Retain the Null Hypothesis
	H_1	There is a difference between the score for a candidate's personal statement and their average academic grade (excluding placement grade)			

			Statistical Test Applied	Sig Value (p=)	
Hypothesis 8i	H_0	There is no difference between the score for the group discussion of an occupational therapy related media clip within the interview and their average academic grade (including placement grade)	One-way ANOVA	.004	Evidence that H_1 is true
	H_1	**There is a difference between the score for the group discussion of an occupational therapy related media clip within the interview and their average academic grade (including placement grade)**			
Hypothesis 8ii	H_0	There is no difference between the score for the group discussion of an occupational therapy related media clip within the interview and their average academic grade (excluding placement grade)	One-way ANOVA	.017	Evidence that H_1 is true
	H_1	**There is a difference between the score for the group discussion of an occupational therapy related media clip within the interview and their average academic grade (excluding placement grade)**			

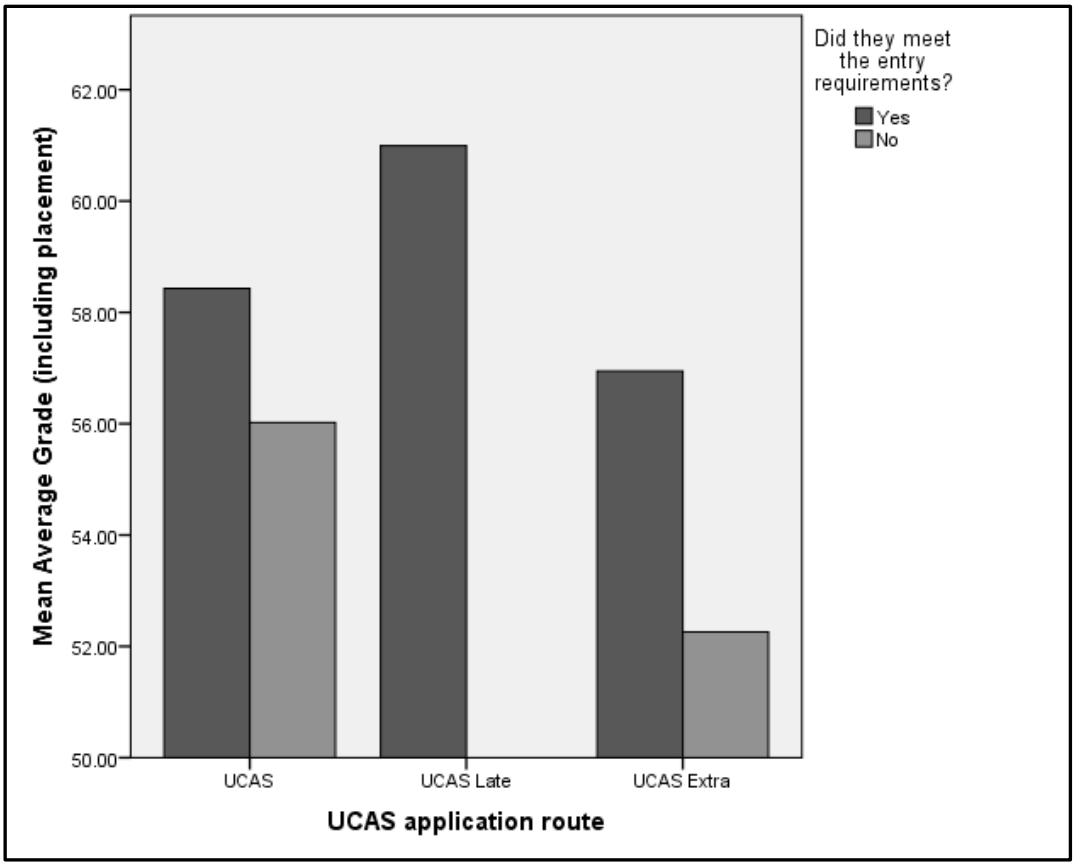
			Statistical Test Applied	Sig Value (p=)	
Hypothesis 9i	H_0	There is no difference between the score for the practical group task within the interview and their average academic grade (including placement grade)	One-way ANOVA	.003	Evidence that H_1 is true
	H_1	**There is a difference between the score for the practical group task within the interview and their average academic grade (including placement grade)**			
Hypothesis 9ii	H_0	There is no difference between the score for the practical group task within the interview and their average academic grade (excluding placement grade)	One-way ANOVA	.011	Evidence that H_1 is true
	H_1	**There is a difference between the score for the practical group task within the interview and their average academic grade (excluding placement grade)**			

Hypothesis 10i	H_0	**There is no difference between the score for the reflection within the interview's written task and their average academic grade (including placement grade)**	One-way ANOVA	.064	Retain the Null Hypothesis
	H_1	There is a difference between the score for the reflection within the interview's written task and their average academic grade (including placement grade)			
Hypothesis 10ii	H_0	**There is no difference between the score for the reflection within the interview's written task and their average academic grade (excluding placement grade)**	One-way ANOVA	.111	Retain the Null Hypothesis
	H_1	There is a difference between the score for the reflection within the interview's written task and their average academic grade (excluding placement grade)			

			Statistical Test Applied	Sig Value (p=)	
Hypothesis 11i	H_0	**There is no difference between the score for the occupational therapy specific questions within the interview's written task and their average academic grade (including placement grade).**	One-way ANOVA	.116	Retain the Null Hypothesis
	H_1	There is a difference between the score for the occupational therapy specific questions within the interview's written task and their average academic grade (including placement grade)			
Hypothesis 11ii	H_0	**There is no difference between the score for the occupational therapy specific questions within the interview's written task and their average academic grade (excluding placement grade).**	One-way ANOVA	.228	Retain the Null Hypothesis
	H_1	There is a difference between the score for the occupational therapy specific questions within the interview's written task and their average academic grade (excluding placement grade).			

			Statistical Test Applied	Sig Value (p=)	
Hypothesis 12i	H_0	There is no difference between the score for the writing style within the interview's written task and their average academic grade (including placement grade)	One-way ANOVA	< .001	Evidence that H_1 is true
	H_1	**There is a difference between the score for the writing style within the interview's written task and their average academic grade (including placement grade)**			
Hypothesis 12ii	H_0	There is no difference between the score for the writing style within the interview's written task and their average academic grade (excluding placement grade)	One-way ANOVA	< .001	Evidence that H_1 is true
	H_1	**There is a difference between the score for the writing style within the interview's written task and their average academic grade (excluding placement grade)**			

Appendix 12 Graph representing UCAS Route of Entry, average academic grade and if the student met the academic entry requirements



Appendix 13 Poster displayed at Faculty of Health and Life Sciences Research Student Poster Symposium, within The Big HLS conference, 15 April 2016

Appendix 14 Abstract accepted for poster presentation at ENOTHE (European Network of Occupational Therapy in Higher Education), 15-19 June 2016

EDUCATION ORAL / POSTER ABSTRACT TEMPLATE COTEC-ENOTHE2016

Carolyn Hay

[1] School of Health, Coventry University, Priory Street, Coventry, England.
c.hay@coventry.ac.uk

Appendix 15 Abstract accepted for presentation at The College of Occupational Therapists 40th Annual Conference and Exhibition, 28-30 June 2016

Type of presentation: Paper

Session Title: 35 - Education and theory development

Session Date & Time: 29/06/2016 15:45 - 29/06/2016 17:15

Session Number: 35

Presentation Number: 35.1

Ends